

# Minhaz F. Zibran

Associate Professor  
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## Education

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Ph.D., Computer Science, University of Saskatchewan, Canada	2014
M.Sc., Computer Science, University of Lethbridge, Canada	2007
B.Sc., Computer Science & Information Technology, Islamic University of Technology, Bangladesh	2002

## Academic Appointments

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- Associate Professor, Computer Science, Idaho State University (ISU), USA, Aug 2021 – to date
  - Associate Professor, Computer Science, University of New Orleans (UNO), USA, Aug 2020 – June 2021
  - Assistant Professor, Computer Science, University of New Orleans (UNO), USA, Jan 2015 – Aug 2020
  - Assistant Professor (Visiting), Computer Science, Bucknell University (BU), USA, Aug 2014 – Dec 2014
  - Visiting Faculty, Computer Science, American International University Bangladesh (AIUB), May 2008 – Aug 2008
  - Lecturer, Computer Science and IT, Islamic University of Technology (IUT), Bangladesh, May 2004 – Aug 2005
  - Lecturer (part-time), Computer Science, Southeast University, Bangladesh (SU), Sept 2003 – Apr 2004

## Industry Experience

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- Intermediate Software Developer, SED Systems, Saskatoon, SK, Canada, Oct 2012 – Sep 2013
  - Programmer (founding employee), Therap (BD) Ltd., Dhaka, Bangladesh, Feb 2004 – Mar 2004
  - Senior Programmer Analyst, Seventh Sense Software, Dhaka, Bangladesh, July 2003 – Feb 2004
  - Programmer, Grameen Solutions Ltd., Dhaka, Bangladesh, Nov 2002 – July 2003

## Media Coverage

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- My team's research has been featured in a local newspaper. [URL] June 23, 2023
  - TechGuide published a short interview with me about the importance of a software engineering degree. [URL] 2023

## Grants

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- Renewal of Interdisciplinary Scholarship for Service for the Intermountain West, National Science Foundation (NSF), PI: Sean McBride, Co-PI: Minhaz Zibran, \$3,550,767. July 2023– June 2028
  - Dog Robot for Surveillance, Internal ISU CAES (Center for Advanced Energy Studies) Grant, Jointly with ISU researchers (Taher Deemyad, Jared Cantrell, Amir Ali) and INL researchers (Vaibhav Yadav, Rajiv Khadka, Gustavo A. Reyes), \$10,200. March 2024– June 2024.
  - VizSoft: Interactive Visualization of Software Aspects in IDE, ISU CAES Seed Grant, PI: Minhaz Zibran, Co-PI: Farjana Eishita, Collaborator: Rajiv Khadka (Idaho National Lab), \$29,969.39. Jan 2023 – Dec 2023
  - Source Code Migration from Griffin to Create a New MOOSE (Multiphysics Object Oriented Simulation Environment) Module, Boltzmann, CAES Collaboration Program Development Fund in Collaboration with the Idaho National Lab (INL). PI: Jackson Harter, Co-PI: Minhaz Zibran (20%), \$50,000. Sep 2022 – Aug 2023
  - Mobile Robots for Security, Internal ISU CAES Grant, Jointly with Taher Deemyad, \$5,000. Aug-Dec'23.
  - Verification, Validation, and Quality Assurance of Computational Tools Associated with Experimental Irradiation Experiments, CAES Summer Visiting Faculty Fellowship in Collaboration with INL. Sole PI: Minhaz Zibran (INL collaborators: Josh Peterson-Droogh, Andrew Bascom, and Austin Carter), \$16,440. May 2022 – Aug 2022

- MineBug: Mining Bug-fix Patterns for Secure and Reliable Software, Louisiana Board of Regents, Sole PI: Minhaz Zibran, \$95,070 (awarded but declined). Aug 2021–Aug 2023
- UNO (University of New Orleans) CyberRange: An Advanced Platform for Cybersecurity Workforce Training, Louisiana Board of Regents, PI: Vassil Roussev, Co-PI: Irfan Ahmed and Minhaz Zibran, \$195,400. June 2018–June 2019
- DoD Cybersecurity Scholarship Program, US Department of Defense (DoD), PI: Vassil Roussev, Co-PI: Minhaz Zibran, \$107,574. Aug 2018–Jul 2019
- Automatic Detection of Emotions in Valence and Arousal Spaces in Software Engineering Text, SCoRe (Stimulating Competitive Research) Grant, UNO ORSP (Office of Research and Sponsored Programs), Sole PI: Minhaz Zibran, \$15,000. Feb 2018–Jan 2019
- Automatic Identification of Malign Code Clones in Software Systems, SCoRe Grant, UNO ORSP, Sole PI: Minhaz Zibran, \$15,000. July 2017–June 2018
- Exposing Bug-fix Patterns through Software Mining, CoS (College of Science) Grant, UNO College of Science, Sole PI: Minhaz Zibran, \$15,000. Apr 2018–Jun 2018
- Automatic Sentiment Detection in Software Engineering Textual Artifacts, CoS Grant, UNO College of Science, Sole PI: Minhaz Zibran, \$5,100. May 2017–Aug 2017

### Awards

- 3rd Best Paper Award at the 4th International Conference on Intelligent Systems and Pattern Recognition (ISPR), Istanbul, Turkey. 2024
- Best Poster Award (\$300) at the Intermountain Engineering, Technology, and Computing (i-ETC) Conference, USA. 2024
- Distinguished Teacher Award nominee, Idaho State University, USA. 2024
- Fall 2023 CPI Supervisor of the Semester runner-up award (\$50+) among 70+ nominations, Idaho State University, USA. 2023
- ACM SIGSOFT CAPS Award (\$500), for attending the 45th International Conference on Software Engineering (ICSE), Melbourne, Australia. 2023
- Best Paper Award at the 27th Intl. Conf. on Software Engineering and Data Eng. (SEDE), USA. 2018
- Advisor of the Year Nominee (Student Leadership Recognition Award) in recognition of outstanding leadership skills and service given to the University of New Orleans in 2016–2017. 2017
- Best Paper Award at the 10th IEEE International Workshop on Software Clones (IWSC), Japan. 2017
- NSF ICSE Travel Award (\$2,367), 38th Intl. Conference on Software Engineering (ICSE), USA. 2016
- 2nd Best Poster Award (\$100), Poster Symposium of CSER Spring meeting in Edmonton, Canada. 2014
- Walter C. Sumner Memorial Fellowship (\$12,000), Canada. 2013, 2012
- ACM SIGAPP Student Travel Award (\$3,000), Canada. 2013, 2012
- The President's Office Student Travel Award (\$500), University of Saskatchewan, Canada. 2013
- College of Grad Studies and Research Travel Award (\$1,100), Uni. of Saskatchewan, Canada. 2012, 2011
- Department of Computer Science Ph.D. Scholarship (\$20,000), University of Saskatchewan, Canada. 2011
- NSERC Post Graduate Scholarship - doctoral level (\$42,000), Canada. 2009
- Province of Alberta International Student Projects Award (\$550), Canada. 2007
- Travel Grant (\$550), Graduate School, University of Lethbridge, Canada. 2007
- 8th position in 26th ACM Regional Computer Programming Contest for Asia Region, Bangladesh. 2001
- 16th in the merit list for the Higher Secondary Certificate examination, Rajshahi Board, Bangladesh. 1998

### Professional Services

- Reviewer, Discovery Grant Proposals, Natural Sciences and Engineering Research Council of Canada, 2024
- Session Co-Chair, 4th International Conference on Intelligent Systems and Pattern Recognition (ISPR), Istanbul, Turkey, June 26–28, 2024

- Session Chair, Technical Session 3 (Chat GPT & Data Processing), 22nd IEEE/ACIS International Conference on Software Engineering, Management and Applications, Honolulu, HI, USA, May 30–June 1, 2024
- Session Chair, Technical Session III (Software Design and Data Engineering Session II), 7th International Conference on Software and System Engineering (ICoSSE), Paris, France, April 19–21, 2024
- Co-Chair for the IEEE COMPSAC Symposium on Mobile, Wearable & Ubiquitous Computing, 2023, 2024
- Review committee member (Machine Learning and its Applications track) for the 39th ACM/SIGAPP Symposium on Applied Computing (SAC), 2024
- Program Committee (PC) member (Video Games - Experience and Applications track) for the 20th Springer International Conference on Information Technology: New Generations (ITNG), 2024
- External reviewer for the Promotion and Tenure Application of an assistant professor at the Computer Science Department of the Bowling Green State University, 2022
- Program Committee (PC) member, IEEE/ACM Intl. Conf. on Mining Software Repositories (MSR), 2020, 2021
- PC member, IEEE International Workshop on Software Clones (IWSC), 2015, 2017, 2018, 2019
- PC member, Intl. Workshop on Emotion Awareness in Software Engineering (SEmotion), 2018, 2019, 2020
- Member, Proposal Review Panel, National Science Foundation (NSF), 2018
- Local Chair for the 10th EAI International Conference on Digital Forensics & Cyber Crime (ICDF2C), 2018
- PC Member, International Conference on Program Comprehension (ICPC), 2012, 2018
- PC member, 1st International Workshop on Affective Computing for Requirements Engineering (AffectRE), 2018
- PC Co-Chair, IEEE 10th International Workshop on Software Clones (IWSC), 2016
- PC member, International Workshop on Enterprise Web Application Dependability (EWAD), 2015, 2016
- Proceedings and Pamphlet Co-chair, 22nd IEEE Intl. Conf. on Program Comprehension (ICPC), 2014
- Web Chair, 29th IEEE International Conference on Software Maintenance (ICSM), 2013
- Web Chair, 12th IEEE International Conference on Source Code Analysis and Manipulation (SCAM), 2012
- PC Member, 19th Working Conference on Reverse Engineering (WCRE), 2012
- Web Chair, 19th IEEE International Conference on Program Comprehension (ICPC), 2011

### **Reviewer for Journal Publications**

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- Journal of Software: Practice and Experience, Wiley & Sons, 2024
- ACM Transaction on Software Engineering and Methodology (TOSEM), 2020
- IEEE Software, 2019
- Elsevier Journal of Systems and Software (JSS), 2016, 2017, 2019
- Springer Journal of Empirical Software Engineering (EMSE), 2017, 2018
- IEEE Security & Privacy, 2016
- Elsevier Journal of Information and Software Technology (IST), 2015
- Springer Software Quality Journal (SQJ), 2015

### **Administrative Services**

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- Co-sponsor/co-lead, Presidential Cybersecurity Project Charter, ISU, July 2023 – to date
- Graduate Program Director, Department of Computer Science, ISU, Fall 2023 – to date
- Member, CoSE Workload Task Force, College of Science and Engineering, ISU, Spring 2024 – to date
- Member, PhD EAS (Engineering and Applied Science) Program Committee, ISU, Spring 2024 – to date
- Member, Senior Lecturer Search Committee, Department of Computer Science, ISU, Spring 2024 – June 2024
- Represented ISU at the Eastern Idaho Cybersecurity Alliance meeting, April 4, 2024
- Judge, ISU Research and Creative Works Symposium, Graduate Poster and Creative Works Sessions, March 2024
- Co-originator of MSCS Graduate Curriculum Proposal, Department of Computer Science, ISU, Fall 2023
- Co-originator of BSSE Undergraduate Curriculum Proposal, Department of Computer Science, ISU, Fall 2023
- Member, CS Graduate Studies Committee, Department of Computer Science, ISU, Aug 2021 – to date

- Faculty Chaperone, Boise Entrepreneurship Week (BEW), managed and drove students to the BEW event at Boise, ID, October 2022
- Chair, Faculty Search Committee, Department of Computer Science, ISU, Aug 2021 – May 2022
- Member, Faculty Search Committee, Dept. of Electrical and Computer Engineering, ISU, Aug 2021 – May 2022
- Graduate Assessment Coordinator, Department of Computer Science, ISU, 2021 – 2022
- Graduate Coordinator, Department of Computer Science, UNO, 2019 – 2021
- Chair, Graduate Studies Committee, Department of Computer Science, UNO, 2019 – 2021
- Member, UNO Cyber Center, UNO, 2017 – 2021
- Organizer, Departmental Weekly Research Seminars, Department of Computer Science, UNO, 2018 – 2019
- Member, Graduate Grade Appeal Committee, Department of Computer Science, UNO 2016 – 2018
- Member, Undergraduate Grade Appeal Committee, Department of Computer Science, UNO 2016 – 2018
- Coordinated the Software Engineering Apprenticeship Program (SWEAP), which facilitated placing UNO students for internships in software industry 2015 – 2017

### Professional Trainings and Workshops

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- Artificial Intelligence for Cybersecurity, a 3-day workshop at the Boise State University, USA, 2023
- Software Reverse Engineering with Ghidra, a 16 Credit-hours Cybersecurity Training at the BlackHat USA, 2022
- Idaho Discrete Math Workshop (06 days), Boise State University, USA, 2022
- Two-days training on JIRA (Day-1: Getting More from Jira Software Server, Day-2: Realizing the Power of Jira Reporting & Dashboards), University of New Orleans, USA, 2019
- SEED 2018 Summer Workshop on Hands-on Labs for Security Education, Syracuse University, USA, 2018
- Learning and Engagement Strategies in Software Engineering, Florida International University, USA, 2017
- Pedagogy and Course Design, Bucknell University, USA, 2014
- Fuzzy Logic Theory and Applications, 3.5 credit tutorial, IEEE North Saskatchewan Section, Canada, 2010
- Leadership Development, British High Commission and Dhaka University, Bangladesh, 2004

### Students Advising and Mentoring

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- Costain Nachuma, PhD Student, Idaho State University, Aug 2023– present  
Under my mentorship, he won the following awards:  
- Best Poster award at the Intermountain Engineering, Technology, and Computing Conference, 2024.  
- Best Oral Presentation award at the ISU Research and Creative Works Symposium 2024.
- Md Fazle Rabbi, PhD Student, Idaho State University, Aug 2022– present  
Under my mentorship, he won the following awards:  
- Second Runner-up Student Employee of the Year (2023) prize.
- Arifa I. Champa, PhD Student, Idaho State University, Aug 2022– present  
Under my mentorship, she won the following awards:  
- CPI (Career Path Intern) of the Month, August 2023.
- Md Rakibul Islam, PhD Student, University of New Orleans, Aug 2015–Apr 2020  
(now an Assistant Professor of Computer Science at the Lamar University, Texas).  
Under my mentorship, he won the following awards:  
- Two best paper awards  
- Three conference papers invited at journals  
- Completer Award at UNO, 2020  
- Privateer Choice Best Poster Award, InnovateUNO 2019  
- One of the best five posters at the InnovateUNO 2017  
- Four NSF/ACM travel awards for attending conferences
- Md. Kauser Ahmmed, MS Student, University of New Orleans, Aug 2018–May 2019

- Reecha Khanal, Undergrad Student, University of New Orleans, Jan 2017–Apr 2017  
Under my mentorship, she won the Privateer Choice Award at the 2017 InnovateUNO event.
- Lindsey Ann Dale, MS Student, University of New Orleans, Aug 2016–Dec 2016
- Saroj Duwal, Undergrad Student, Uni. of New Orleans, (now Software Engineer at Google) Aug 2017–May 2018
- Pradeep Jakibanjar, Undergraduate Student, University of New Orleans, Jan 2015–May 2016
- Supervisor of undergraduate dissertation, “Design and Development of a Software Level (loosely-coupled) Ubiquitous Computing Grid: A Job Submission and Allocation Tool for Distributed Processing and a Way to Govern the Operations of the Home Appliances” at the Islamic University of Technology, Bangladesh, 2004.
- Supervised undergrad thesis, “An Alternative Framework of E-Commerce and Electronic Payment Systems Specially Suitable for the Developing Countries Like Bangladesh” at the Islamic University of Technology, Bangladesh, 2004.
- Coach for the Islamic University of Technology programming team for the National Computer Programming Contest held at the International Islamic University Chittagong, Bangladesh, 2004.

### **Thesis Examination Committee Services**

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- Major Professor, PhD advisory committee for Md Fazle Rabbi, Dept. of Computer Science, ISU, May 2024–present.
- Major Professor, PhD advisory committee for Arifa Champa, Dept. of Computer Science, ISU, May 2024–present.
- Major Professor, PhD advisory committee for Costain Nachuma, Dept. of Computer Science, ISU, May 2024–present.
- Chair, PhD Advisory Committee for Rifat Ara Tasnim, Department of Computer Science, ISU, Fall 2021–Spring 2024.
- Software engineering doctoral thesis, Islamic University of Technology (IUT), Bangladesh, 2022–present.
- GFR, Slotted Waveguide for High Dielectric Heating Applications, MS thesis, Idaho State University (ISU), 2023.
- The Kati Module System: Modular Design for Delivering Character Focused Dialogue in Games, MS, UNO, 2021.
- Analysis of Human Affect and Bug Patterns to Improve Software Quality and Security, PhD, UNO, 2020.
- Performance Modeling and Analysis of Algorithms on Parallel Computing Systems, MS, UNO, 2020.
- Detecting Acoustic Properties of Model Outputs Using Machine Learning, MS, UNO, 2020.
- Ship Detection Feature Analysis in Optical Satellite Imagery through Machine Learning Applications, MS, UNO, 2020.
- Accelerating Information Theoretic Approach of Community Detection Using Distributed and Hybrid Memory Parallel Schemes, MS, UNO, 2020.
- Classification of Prostate Cancer Patients into Indolent and Aggressive Using Machine Learning, MS, UNO, 2020.
- A Scientific Approach for High Performance Digital Forensics, PhD, UNO, 2019.
- Distributed Community Detection in Large Networks using An Information-Theoretic Approach, MS, UNO, 2019.
- Prediction of Hierarchical Classification of Transposable Elements Using ML Techniques, MS, UNO, 2019.
- Detection of Sand Boils from Images using Machine Learning Approaches, MS, UNO, 2019.
- Semantic-aware Stealthy Control Logic Infection Attack, MS, UNO, 2018.
- Remote Monitoring of Cherry Wetness Using a Leaf Wetness Sensor and Wireless Sensor Network, MS, UNO, 2018.
- MAnanA: A Heuristic Scoring Framework for Analysis of Concept Maps in Cybersecurity Education, MS, UNO, 2018.
- Assessment of Pedagogical Tools for Cybersecurity Education, MS, UNO, 2018.
- Automatic Forensic Analysis of Digital Artifacts from PCCC Network Traffic Log, MS, UNO, 2017.
- Survey of Autonomic Computing and Experiments on JMX-based Autonomic Features, MS, UNO, 2016.

### **Community Services**

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- Faculty Advisor, Bangladesh Students’ Association at the Idaho State University, USA, 2023–to date
- Faculty Advisor, Bangladeshi Students’ Association at the University of New Orleans, USA, 2016–2017
- Elected President, Computer Science Graduate Course Council (CSGCC),  
Department of Computer Science, University of Saskatchewan, Canada, 2011–2012

- Elected President, Bangladeshi Students' Association at the University of Saskatchewan, Canada, 2011–2012
- Elected GSA (Graduate Students Association) Representative for the CSGCC, Department of Computer Science, University of Saskatchewan, Canada, 2010–2011

### Professional Membership

- Member, Center for Advanced Energy Studies (CAES), Idaho, USA.
- Professional Member, ACM Special Interest Group on Applied Computing (SIGAPP)
- Professional Member, ACM Special Interest Group on Software Engineering (SIGSOFT)
- Professional Member, ACM Special Interest Group on Computer Science Education (SIGCSE)
- Professional Member, IEEE Computer Society

### Teaching Experience

Courses Taught	Taught as
<ul style="list-style-type: none"> <li>• Empirical Software Engineering, Fall 2023, 2024</li> <li>• Introduction to Software Engineering, Fall 2022, Spring 2023</li> <li>• Foundations in Cybersecurity and Resilience, Fall 2021, 2022, 2023, 2024</li> <li>• Cybersecurity Threat Intelligence, Spring 2022, 2023, 2024</li> </ul>	Associate Professor, ISU
<ul style="list-style-type: none"> <li>• Agile Software Engineering, Spring 2021</li> <li>• Introduction to Software Engineering, Spring 2021</li> <li>• Software Security, Fall 2020</li> <li>• Data Models and Database Systems, Fall 2020</li> </ul>	Associate Professor, UNO
<ul style="list-style-type: none"> <li>• Software Security, Fall 2016–2019</li> <li>• Data Models and Database Systems, Spring 2020</li> <li>• Software Testing and Quality Assurance, Spring 2017–2019</li> <li>• Topics in Advanced Computer Science, Fall 2019</li> <li>• Agile Software Engineering, Fall 2015–2019</li> <li>• Advanced Software Engineering, Spring 2016</li> <li>• Introduction to Software Engineering, Spring 2016–2020</li> <li>• Data Structures, Spring 2015</li> </ul>	Assistant Professor, UNO
<ul style="list-style-type: none"> <li>• Introduction to Computer Science, Fall 2014</li> <li>• Programming Language Design, Fall 2014</li> </ul>	Assistant Professor, BU
<ul style="list-style-type: none"> <li>• Object Oriented System Analysis and Design, Summer 2008</li> <li>• Management Information Systems, Summer 2008</li> <li>• Enterprise Resource Planning, Summer 2008</li> </ul>	Visiting Faculty, AIUB
<ul style="list-style-type: none"> <li>• Visual Programming with Java, Summer 2005</li> <li>• Unix Programming, Winter 2005</li> <li>• Human Computer Interaction, Winter 2005</li> <li>• Parallel and Distributed Systems, Summer 2004</li> <li>• E-commerce and Web Design, Winter 2004</li> </ul>	Lecturer, IUT
<ul style="list-style-type: none"> <li>• Object Oriented programming with Microsoft Visual C++, Winter 2004</li> <li>• Introduction to Programming with C, Fall 2003</li> </ul>	Lecturer, SU

### Publications

#### Refereed Journal Contributions:

1. M. Islam and M. Zibran. What Changes in Where? An Empirical Study of Bug-Fixing Change Patterns, ACM Applied Computing Review, 20 (4): 18–34, 2021.

2. M. Islam and M. Zibran. SentiStrength-SE: Exploiting Domain Specificity for Improved Sentiment Analysis in Software Engineering Text, Elsevier Journal of Systems and Software (JSS), 145: 125–146, 2018.
3. M. Islam and M. Zibran. Exploration and Exploitation of Developers’ Sentimental Variations in Software Engineering, International Journal of Software Innovation (IJSI), 4 (4): 35–55, 2016.
4. M. Zibran and C. Roy. Conflict-aware Optimal Scheduling of Code Clone Refactoring. Journal of IET Software, 7 (3): 167–186, 2013.
5. M. Zibran, R. Saha, C. Roy, and K. Schneider. Genealogical Insights into the Facts and Fictions of Clone Removal. ACM Applied Computing Review, 13 (4): 30–42, 2013.
6. M. Zibran. What Makes APIs Difficult to Use? International Journal of Computer Science and Network Security (IJCSNS), 8 (4): 255–261, 2008.

*Book Chapters:*

7. A. Champa, M. Rabbi, and M. Zibran. Illustration or Illusion? Reassessing the Use of Machine Learning in Phishing Email Detection. Springer Studies in Computational Intelligence (SCI) series, pp. 1–17, 2024 (to appear).
8. C. Nachuma, M. Rabbi, A. Champa, and M. Zibran. Analyzing ChatGPT Assistance in Programming. Springer Studies in Computational Intelligence (SCI) series, pp. 1–12, 2024 (to appear).
9. R. Tasnim, F. Eishita, and M. Zibran. Data Guard: Android Application to Monitor Security Threat in Background Data Transmission. Springer Studies in Computational Intelligence (SCI) series, pp. 1–12, 2024 (to appear).
10. M. Rabbi, A. Champa, and M. Zibran. Phishy? Detecting Phishing Emails Using Machine Learning and Natural Language Processing. Software Engineering and Management: Theory and Application (vol. 16), Springer Studies in Computational Intelligence (SCI) series (vol. 1137), [https://doi.org/10.1007/978-3-031-55174-1\\_9](https://doi.org/10.1007/978-3-031-55174-1_9), pp. 119–137, 2024.
11. A. Champa, M. Rabbi, F. Eishita, and M. Zibran. Are We Aware? An Empirical Study on the Privacy and Security Awareness of Smartphone Sensors. Software Engineering and Management: Theory and Application (vol. 16), Springer Studies in Computational Intelligence (SCI) series (vol. 1137), [https://doi.org/10.1007/978-3-031-55174-1\\_9](https://doi.org/10.1007/978-3-031-55174-1_9), pp. 139–158, 2024.
12. J. Imseis, C. Nachuma, S. Arifuzzaman, M. Zibran, and Z. Bhuiyan. On the Assessment of Security and Performance Bugs in Chromium Open-Source Project, Dependability in Sensor, Cloud, and Big Data Systems and Applications, Springer Communications in Computer and Information Science (CCIS) series, vol. 1123, pp. 145–157, 2019.

*Refereed Conference Contributions:*

13. N. Jannat, S. Hasan, M. Zibran. Revolutionizing Crop Leaf Disease Detection: A Novel Ensemble Learning Framework Using Customized EfficientNets. In 4th Springer International Conference on Intelligent Systems and Pattern Recognition (ISPR 2024), pp. 1–15, Turkey, 2024 (to appear) (3rd **best paper award**).
14. M. Rabbi, A. Champa, C. Nachuma, and M. Zibran. SBOM Generation Tools Under Microscope: A Focus on the npm Ecosystem. In 39th ACM/SIGAPP Symposium On Applied Computing (SAC), pp. 1233–1241, Spain, 2024.
15. M. Rabbi, A. Champa, M. Zibran, and M. Islam. AI Writes, We Analyze: The ChatGPT Python Code Saga. In 21st ACM International Conference on Mining Software Repositories (MSR), pp. 177–181, Portugal, 2024.
16. A. Champa, M. Rabbi, C. Nachuma, and M. Zibran. ChatGPT in Action: Analyzing Its Use in Software Development. In 21st ACM International Conference on Mining Software Repositories (MSR), pp. 182–186, Portugal, 2024.
17. M. Islam, M. Rabbi, J. Youngeun, A. Champa, E. Young, C. Wilson, G. Scott, and M. Zibran. A Four-Dimension Gold Standard Dataset for Opinion Mining in Software Engineering. In 21st ACM International Conference on Mining Software Repositories (MSR), pp. 487–491, Portugal, 2024.
18. A. Champa, M. Rabbi, and M. Zibran. Why Phishing Emails Escape Detection: A Closer Look at the Failure Points. In 12th IEEE International Symposium on Digital Forensics and Security (ISDFS), pp. 1–6, USA, 2024.

19. A. Champa, M. Rabbi, and M. Zibran. Curated Datasets and Feature Analysis for Phishing Email Detection with Machine Learning. In 3rd IEEE International Conference on Computing and Machine Intelligence (ICMI), pp. 1–7, USA, 2024 (to appear).
20. M. Oishe, S. Hasan, M. Zibran. Breaking the Mold: ViT-CNN Fusion for Enhanced Glaucoma Prediction in OCT Images. In 23rd Springer International Conference on Artificial Intelligence and Soft Computing (ICAISC), pp. 1–18, Poland, 2024 (to appear).
21. A. Clark, D. Igbokwe, S. Ross, M. Zibran. A Quantitative Analysis of Quality and Consistency in AI-generated Code. In 7th IEEE International Conference on Software and System Engineering (ICoSSE), pp. 1–5, France, 2024 (to appear).
22. S. McDaniel and M. Zibran. Improving Source Code with Assistance from AI - A Pilot Case Study with ChatGPT. In 7th IEEE International Conference on Information and Computer Technologies (ICICT 2024), pp. 332–337, USA, 2024.
23. A. Hafezi, M. Zibran, and T. Deemyad. Autonomous Surveillance Breakthrough by Implementing Facial Recognition in Dog Robots. In IEEE Intermountain Engineering, Technology, and Computing Conference (i-ETC), pp. 1–6, USA, 2024 (to appear).
24. A. Champa, M. Rabbi, M. Zibran, and M. Islam. Insights into Female Contributions in Open-Source Projects, In 20th ACM/IEEE International Conference on Mining Software Repositories (MSR), pp. 357–361, Australia, 2023.
25. A. Champa, M. Rabbi, F. Eishita, and M. Zibran. Are We Aware? An Empirical Study on the Privacy and Security Awareness of Smartphone Sensors. In 21st IEEE International Conference on Software Engineering, Management and Applications (SERA), pp. 287–294, USA, 2023.
26. M. Rabbi, A. Champa, and M. Zibran. Phishy? Detecting Phishing Emails Using ML and NLP. In 21st IEEE International Conference on Software Engineering, Management and Applications (SERA), pp. 77–83, USA, 2023.
27. A. Rajbhandari, M. Zibran, and F. Eishita. Security Versus Performance Bugs: How Bugs are Handled in the Chromium Project. In 20th IEEE International Conference on Software Engineering, Management and Applications (SERA), pp. 70–76, USA, 2022.
28. J. Rodriguez, M. Zibran, and F. Eishita. Finding the Middle Ground: Measuring Passwords for Security and Memorability. In 20th IEEE International Conference on Software Engineering, Management and Applications (SERA), pp. 77–82, USA, 2022.
29. R. Joseph, M. Zibran, and F. Eishita. Choosing the Weapon: A Comparative Study of Security Analyzers for Android Applications. In 18th IEEE International Conference on Software Engineering, Management and Applications (SERA), pp. 51–57, Japan, 2021.
30. D. Murphy, M. Zibran, and F. Eishita. Plugins to Detect Vulnerable Plugins: An Empirical Assessment of the Security Scanner Plugins for WordPress. In 18th IEEE International Conference on Software Engineering, Management and Applications (SERA), pp. 39–44, Japan, 2021.
31. M. Islam and M. Zibran. How Bugs Are Fixed: Exposing Bug-fix Patterns with Edits and Nesting Levels. In 35th ACM Symposium On Applied Computing (SAC), pp. 1523–1531, Czech Republic, 2020 (invited at the ACM Applied Computing Review).
32. M. Islam, M. Ahmmmed and M. Zibran. MarValous: Machine Learning Based Detection of Emotions in the Valence-Arousal Space in Software Engineering Text. In 34th ACM Symposium On Applied Computing (SAC), pp. 1786–1793, Cyprus, 2019.
33. M. Islam and M. Zibran. Sentiment Analysis in Software Bug Related Commit Messages. In 27th International Conference on Software Engineering and Data Engineering (SEDE), pp. 3–8, USA, 2018 (**best paper award**).
34. D. Alawad, M. Panta, M. Zibran, and M. Islam. An Empirical Study of the Relationships between Code Readability and Software Complexity. In 27th International Conference on Software Engineering and Data Engineering (SEDE), pp. 122–127, USA, 2018.



35. N. Sattar, M. Faysal, M. Zibran, S. Arifuzzaman, and M. Islam. Data Mining in-IDE Activities: Why Software Developers Fail. In 27th International Conference on Software Engineering and Data Engineering (SEDE), pp. 97–102, USA, 2018.
36. M. Islam and M. Zibran. A Comparison of Software Engineering Domain Specific Sentiment Analysis Tools. In 25th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER), pp. 487–491, Italy, 2018.
37. M. Islam and M. Zibran. DEVA: Sensing Emotions in the Valence Arousal Space in Software Engineering Text. In 33rd ACM Symposium On Applied Computing (SAC), pp. 1536–1543, France, 2018.
38. M. Islam and M. Zibran. Leveraging Automated Sentiment Analysis in Software Engineering. In 14th IEEE International Conference on Mining Software Repositories (MSR), pp. 203–214, Argentina, 2017.
39. M. Islam, M. Zibran, and A. Nagpal. Security Vulnerabilities in Categories of Clones and Non-Cloned Code: An Empirical Study. In 11th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM), pp. 20–29, Canada, 2017.
40. M. Islam and M. Zibran. A Comparison of Dictionary Building Methods for Sentiment Analysis in Software Engineering Text. In 11th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM), pp. 478–479, Canada, 2017.
41. M. Islam and M. Zibran. Insights into Continuous Integration Build Failures. In 14th IEEE International Conference on Mining Software Repositories (MSR), pp. 467–470, Argentina, 2017.
42. M. Islam and M. Zibran. Towards Understanding and Exploiting Developers’ Emotional Variations in Software Engineering. In 14th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA), pp. 185–192, Baltimore, USA, 2016 (invited at the Journal of Software Innovation).
43. M. Zibran. On the Effectiveness of Labeled Latent Dirichlet Allocation in Automatic Bug-Report Categorization. In 38th International Conference on Software Engineering (ICSE), pp. 713–715, USA, 2016.
44. C. Roy, M. Zibran, and R. Koschke. The Vision of Software Clone Management: Past, Present, and Future. In IEEE CSMR-18/WCRE-21 Software Evolution Week (SEW’14), Vision Keynote, pp. 18–33, Belgium, 2014.
45. M. Zibran, R. Saha, C. Roy, and K. Schneider. Evaluating the Conventional Wisdom in Clone Removal: A Genealogy-based Empirical Study. In the 28th ACM Symposium On Applied Computing (SAC), pp. 1123–1130, Portugal, 2013 (invited at the ACM Applied Computing Review).
46. T. Muhammad, M. Zibran, Y. Yamamoto, C. Roy. Near-miss Clone Patterns in Web Applications: An Empirical Study with Industrial Systems. In the 26th Annual Canadian Conference on Electrical and Computer Engineering (CCECE), pp. 1–6, Canada, 2013.
47. M. Zibran and C. Roy. IDE-based Focused Search for Near-miss Clones. In the 27th ACM Symposium on Applied Computing (SAC), pp. 1235–1242, Italy, 2012.
48. M. Zibran and C. Roy. A Constraint Programming Approach to Conflict-aware Optimal Scheduling of Prioritized Code Clone Refactoring. In the 11th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM), pp. 105–114, USA, 2011 (invited at the IET Software Journal).
49. M. Zibran, F. Eishita, and C. Roy. Useful, but usable? Factors Affecting the Usability of APIs. In the 18th Working Conference on Reverse Engineering (WCRE), pp. 151–155, Ireland, 2011.
50. M. Zibran. Analysis and Management of Code Clones. In the doctoral symposium of the 27th IEEE International Conference on Software Maintenance (ICSM), 4 pp., USA, 2011.
51. M. Zibran and C. Roy. Conflict-aware Optimal Scheduling of Code Clone Refactoring: A Constraint Programming Approach. In the student symposium of the 19th IEEE International Conference on Program Comprehension (ICPC), pp. 266–269, Canada, 2011.
52. M. Zibran, R. Saha, M. Asaduzzaman, and C. Roy. Analyzing and Forecasting Near-miss Clones in Evolving Software: An Empirical Study. In the 16th IEEE International Conference on Engineering of Complex Computer Systems (ICECCS), pp. 295–304, USA, 2011.

53. R. Saha, M. Asaduzzaman, M. Zibran, C. Roy, and K. A. Schneider. Evaluating Code Clone Genealogies at Release level: An Empirical Study. In the 10th IEEE International Conference on Source Code Analysis and Manipulation (SCAM), pp. 87–96, Romania, 2010.
54. S. Hossain and M. Zibran. M-Sched: A University Course Timetabler. In the 7th Springer International Conference on the Practice and Theory of Automated Timetabling (PATAT), 4 pp., Canada, 2008.
55. A. Pathan, M. Mottalib, and M. Zibran. An Internet Framework to Bring Coherence between WAP and HTTP Ensuring Better Mobile Internet Security. In the 8th IEEE International Conference on Advanced Communication Technology (ICACT), Vol. 1, pp. 215–220, Korea, 2006.
56. A. Pathan and M. Zibran. Ensuring Security in WAP and Usability in WAP Applications. In the 8th IEEE International Conference on Computer and Information Technology (ICCIT), pp. 780–785, Bangladesh, 2005.
57. M. Zibran, A. Tanvir, M. Rajiullah, and M. Sattar. Computer Representation of Bangla Characters and Sorting of Bangla Words. In the 5th IEEE International Conference on Computer and Information Technology (ICCIT), pp. 191–195, Bangladesh, 2002.

*Refereed Workshop Contributions:*

58. N. Sattar, S. Arifuzzaman, M. Zibran, and M. Sakib. Detecting Web Spams in Webgraphs with Predictive Model Analysis. In the 3rd International Workshop on Big Data Analytic for Cybercrime Investigation and Prevention, pp. 4299–4308, USA, 2019.
59. M. Islam and M. Zibran. On the Characteristics of Buggy Code Clones: A Code Quality Perspective. In proceedings of the 12th IEEE International Workshop on Software Clones (IWSC), pp. 23–29, Italy, 2018.
60. M. Islam and M. Zibran. A Comparative Study on Vulnerabilities in Categories of Clones and Non-Cloned Code. In proceedings of the 10th IEEE International Workshop on Software Clones (IWSC), pp. 8–14, Japan, 2016 (**best paper award**).
61. M. Zibran. Towards Implementation of an Integrated Clone Management Infrastructure. In 10th IEEE International Workshop on Software Clones (IWSC), pp. 60–61, Japan, 2016.
62. M. Zibran. Analysis and Visualization for Clone Refactoring. In 9th IEEE International Workshop on Software Clones (IWSC), pp. 47–48, Canada, 2015.
63. M. Zibran and C. Roy. Towards Flexible Code Clone Detection, Management and Refactoring in IDE. In 5th ACM International Workshop on Software Clones (IWSC), pp. 75–76, USA, 2011.
64. S. Hossain and M. Zibran. A Multi-phase Approach to the University Course Timetabling Problem. In the 6th Cologne-Twente Workshop on Graphs and Combinatorial Optimization, pp. 73–76, The Netherlands, 2007.
65. M. Pathan, M. Zibran, and M. A. Mottalib. An HTTP-WAP Framework to Bring Coherence in Wired and Wireless Internet Ensuring Better Mobile Internet Security. In the 1st Workshop on Prospects and Problems of Mobile and Land Phones in Bangladesh, Independent University, Bangladesh (IUB), pp. 53–60, 2005.

*Posters and Tool Demonstrations:*

66. C. Nachuma, A. Champa, M. Rabbi, and M. Zibran. ChatGPT in Aiding Software Development: An Empirical Study. In IEEE Intermountain Engineering, Technology, and Computing Conference (i-ETC), USA, 2024 (**best poster award**).
67. A. Champa, M. Rabbi, and M. Zibran. Crafting the Shield Against Email Phishing with Curated Datasets. In IEEE Intermountain Engineering, Technology, and Computing Conference (i-ETC), USA, 2024.
68. M. Rabbi, A. Champa, and M. Zibran. Evaluating the Code Quality and Security of AI-Generated Python Code. In IEEE Intermountain Engineering, Technology, and Computing Conference (i-ETC), USA, 2024.
69. M. Rabbi, A. Champa, and M. Zibran. Phishing Email Detection Using Machine Learning and Natural Language Processing, Graduate Research Symposium, Idaho State University, 2023.
70. A. Champa, M. Rabbi, and M. Zibran. Insights into Gender-wise Contributions in Software Development Projects, Graduate Research Symposium, Idaho State University, 2023.

71. M. Islam and M. Zibran. Entity Based Aspect-Oriented Opinion Mining in Software Engineering. InnovateUNO, The University of New Orleans, USA, 2019.
72. M. Islam and M. Zibran. An Empirical Study of Security Vulnerabilities in Software Systems. In 10th EAI International Conference on Digital Forensics & Cyber Crime (ICDF2C 2018), USA, 2018.
73. M. Islam and M. Zibran. Understanding Bug Fix Patterns: Towards an Improved Automated Program Repair Method. InnovateUNO, The University of New Orleans, USA, 2018.
74. M. Zibran, C. Roy, and K. A. Schneider. Topic Modeling for Bug-report Categorization. In the CSER (Consortium for Software Engineering Research) 2014 Spring Meeting (poster session), Edmonton, Canada, 5 May 2014.
75. M. Zibran. Diagnosis and Treatment of Code Clones. In poster symposium of the 27th IEEE International Conference on Software Maintenance (ICSM), USA, 2011.
76. M. Zibran and C. Roy. Code Clones: Etiology, Effects, and Treatment. In the CSER (Consortium for Software Engineering Research) 2011 Spring Meeting (poster session), Ontario, Canada, 21 June 2011.
77. M. Zibran and C. Roy. Cloning in Software: Why, When, and How?. In the College of Arts and Science Graduate Students Poster Symposium, University of Saskatchewan, Canada, 19 April 2011.
78. M. Zibran and C. Roy. Flexible Code Clone Detection and Management in IDE. In the Technology showcase in the 20th Annual Conference (CASCON), Centre for Advanced Studies Research, IBM Canada Software Laboratory, Canada, 2010.
79. M. Zibran. A Multi-phase Approach to Automated Course Timetabling. Poster session in the 2007 CMS-MITACS Joint Conference, pp. 129, Manitoba, Canada, 2007.
80. A. Azim, S. Kabir, and M. Zibran. Alternative Frameworks of E-Commerce and Electronic Payment Systems Specially Suitable for the Developing Countries Like Bangladesh. Poster paper in the 8th IEEE International Conference on Computer and Information Technology (ICIT), Bangladesh, 2005.

*Technical Reports and Other Contributions:*

81. M. Zibran and Chanchal K. Roy. The Road to Software Clone Management: A Survey, Technical Report 2012-03, pp. 1–62, Department of Computer Science, University of Saskatchewan, Canada, 2012.
82. M. Zibran. Evaluating Test Quality, Technical Report 2012-01, pp. 1–14, Department of Computer Science, University of Saskatchewan, Canada, 2012.
83. M. Zibran. Biometric Authentication: The Security Issues, Technical Report 2012-02, pp. 1–9, Department of Computer Science, University of Saskatchewan, Canada, 2012.
84. M. Zibran. Cryptographic Security for Emails: A Focus on S/MIME, Technical Report 2011-03, pp. 1–19, Department of Computer Science, University of Saskatchewan, Canada, 2011.
85. M. Zibran. Eye Based Authentication: Iris and Retina Recognition, Technical Report 2011-04, pp. 1–56, Department of Computer Science, University of Saskatchewan, Canada, 2011.
86. T. Yeung and M. Zibran. AlouetteCanada Metadata Toolkit Usability Pilot Study. Research Findings, New Media Research and Development Initiative, The Canadian Association of Research Libraries, pp. 1–11, Canada, 2007.

**Invited Talks and Presentations**

1. From Source to Sentiment: A Holistic Approach for Secure and Reliable Software Systems, *Keynote* speech at the 3rd International Conference on Advanced Engineering, Technology and Applications, Italy, May 2024.
2. From Code to Coders: Towards Secure and Reliable Software Systems, *Keynote* Speech at the 7th International Conference on Software and Systems Engineering (ICoSSE), Paris, France, April 2024.
3. Software Analytics: from Source to Sentiment. University of Idaho, USA, October 2022.
4. Software Systems: Friend or Foe? Invited lecture at the Spring 2017 Honors Seminar (A&S 2999), University of New Orleans, USA, February 2017.
5. Clone Management: Detection and Scheduling for Refactoring. University of New Orleans, USA, November 2014.
6. Detection and Analysis of Code Clones from Management Perspective. Bucknell University, USA, April 2014.

7. Analysis and Management of Code Clones. University College London (UCL), UK, October 2012.
8. Clone Management. In the Mini Clone Workshop at the CSER (Consortium for Software Engineering Research) 2011 Spring Meeting, Kingston, Ontario, Canada, 21 June 2011.
9. Design Patterns, two lectures in the undergraduate course on Intermediate Software Engineering at the Department of Computer Science, University of Saskatchewan, Canada, Fall 2010.
10. Design Patterns: implementation, and implications, four lectures in the undergraduate course on Intermediate Software Engineering at the Department of Computer Science, University of Saskatchewan, Canada, Fall 2009.
11. Automated University Course Timetabling. Presentation in front of the administrative staff at the University of Lethbridge, Canada, 2007.
12. Solving Systems of Linear Equations, three lectures in the undergraduate course on Linear Algebra at the Department of Mathematics and Computer Science, University of Lethbridge, Canada, Summer 2007.

### **Citizenship Status**

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- US citizen