TIEN NGUYEN

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RESEARCH INTERESTS

Software Engineering, Testing, & Debugging

EDUCATION

Virginia Tech, Blacksburg, VA	Aug 2023 – Present
Ph.D. in Computer Science and Applications	GPA: 4.0
University of Saint Thomas, Saint Paul, MN	Aug 2020 – May 2022
Bachelor of Science in <i>Computer Science</i>	GPA: 3.99
Century College, White Bear Lake, MN	Jan 2018 – May 2020
Associate of Science in <i>Computer Science</i>	GPA: 4.0

RELATED EXPERIENCE

Research Assistant, Virginia Tech, Blacksburg, VA

Aug 2023 – Present

- Assistant to Dr. Muhammad Ali Gulzar
- Conducted a study investigating pathological executability issues in public computational notebooks under novel notions and degrees of executability and found that only 21.3% are truly pathologically non-executable. Developed LLM-based strategies to fully and partially restore 5.4% and 12.8% of previously non-executable notebooks, respectively. Source code and data are available on GitHub (MSR 2025).

Information Security Student Coordinator, University of St. Thomas, Saint Paul, MN Feb 2022 – May 2022

- Monitored and secured university systems and networks within the Security Operations Center (SOC)
- Conducted routine security audits to address about 20 system incidents per day
- Resolved about 5 IT service tickets per day using management tools for optimal efficiency
- Managed Azure Active Directory users, adhering to FERPA guidelines

Software Engineering Intern, Target, Minneapolis, MN

Jun 2021 – Aug 2021

- Developed a full-stack web application enabling 100+ authorized users to search prepaid product masking codes
- Designed front-end user interface components using React, JavaScript, Material UI, and Axios HTTP requests
- Created REST API endpoints for the back end using Java, Spring Boot, and Oracle Database
- Practiced Agile methodologies and utilized Jira board for weekly sprint planning

PUBLICATION

Are the Majority of Public Computational Notebooks Pathologically Non-Executable?
Tien Nguyen, Waris Gill, and Muhammad Ali Gulzar. 2025 IEEE/ACM 22nd International Conference on Mining Software Repositories (MSR), Ottawa, ON, Canada, 2025, pp. 396-407, doi: 10.1109/MSR66628.2025.00070. EMSE Special Issue Invitee.

TEACHING ACTIVITY

CS 1064 Introduction to Programming with Python, TA, Virginia Tech CS 1114 Introduction to Software Engineering with Java, TA, Virginia Tech Fall '24, Spring '25

HONORS & AWARDS

Nancy Jo Hendrickson Legacy Scholarship, AAUW Northeast Metro Branch, MN	Oct 2020
Mathematics Scholarship, Century Foundation, MN	Jul 2020
Academic Scholarship, KOPP Foundation, MN	Oct 2019

PROJECTS

Classy Schedule - Senior Capstone, University of Saint Thomas, Saint Paul, MN

- Developed a web application allowing department chairs to schedule classes and teaching sections
- Designed front-end user interface components using React, Material UI, and JavaScript
- Cooperated with back-end and database teams to deploy and host the application on Azure

AbroadstudiZ – gAlpha, University of Saint Thomas, Saint Paul, MN

- Cooperated with 3 students to design an innovative start-up business model in the gAlpha program
- Constructed a web application using bubble.io that serves as a platform for international students to navigate their study abroad pathway and share their global experience
- Interviewed 23 current international students and 6 international officers to identify common problems
- Selected as one of the 6 finalists in the 2021 Fowler Global Social Innovation Challenge

REFERENCE

• **Dr. Muhammad Ali Gulzar** – Assistant Professor, Virginia Tech gulzar@vt.edu | https://people.cs.vt.edu/~gulzar