

YULE ZHANG

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EDUCATION

George Mason University

Aug 2018 – Dec 2022

Bachelor of Science, Computer Science - GPA - 3.57

Fairfax, VA

Minor in Software Engineering - GPA - 3.89

Institutional Honors: Cum Laude

PUBLICATIONS

- S. Sabiha, M. Hasan, M. Kevin, and Z. Yule, “GUIEvo: Automated Evolution of Mobile Application GUIs”, Under review for FSE 2024.
- **Ongoing Work:** Takuan: Finding the Root Cause of Order-Dependent Flaky

RESEARCH EXPERIENCE

GMU Dr.Wing Lam’s Lab with Dr.Wing Lam and Dr.August Shi

June 2023 – Current

- Reviewed around 30 papers for runtime prediction and code coverage literature review, used for paper reference and abstract.
- Found the root cause of order-dependent flaky tests for more than 5 projects by manually analyzing project codebases and dynamic invariants.
- Extracted features of auto-find patch software for fixing flaky tests from iFixFlakies and iDFlakies, developed by Dr.Lam and others.

GMU Mason Impact Research Internship with Dr.Myeong Lee and Dr.Shanshan Cui

Summer 2022

- Data Automation: Generated script and utilized natural language processing to translate audio content to text to extract data using AWS.
- Web-based Digital Archive: Developed a program to enable users to search, display, and view library documents that facilitated human-computer interaction and computational archival science with improved software usability.
- RESTful API: Designed RESTful APIs to fetch and filter historical data from the database, allowing asynchronous data pre-processing that improved website responsiveness by nearly 3 minutes.
- Performance: Optimized data-loading performance by 80% with cache system.

GMU SAGE Lab with Dr.Kevin Moran

Mar 2022 – Sep 2022

- Data Collection: Manually collected and annotated over 1000 sources of high-quality data to train and validate the research model to improve the model detection accuracy by 30%.
- Research Implementation: Worked on the research project that handles automatic detection of mobile UI changes to improve UI design choices with better software usability.

WORK EXPERIENCE

UPS

Aug 2022 – Current

Software Engineer Coop | Java, Linux, GCP, Maven, Junit-Mokito, Spring Boot, Git

Timonium, MD

- Report Generation: Recorded and monitored user flow and applications activities, handling over 1 billion daily calls.
- Logging Dashboard: Built GCP and Grafana Loki dashboards used to display performance metrics for services, including registration, log-in, email verification, and more, enabling engineers to be more efficient in debugging jobs and management analytics.
- Testing: Wrote Junit test cases for backend services-related APIs to ensure quality software and enable regression testing.
- Obtained a full-time offer from the Application Development department, IMS team by demonstrating strong self-learning skills and work ethic.

George Mason University

Spring, Fall 2021

Undergraduate Teaching Assistant

Fairfax, VA

- Assisted Graduate Teaching Assistants during labs, maintaining classrooms for Java and Python courses.
- Performed testing and review of class assignments, ensuring quality documentation.
- Provided technology support in classes, providing consistent guidance to over 200 students.

GRAD COURSE PROJECTS

CS 484/584 Data Mining, Movie Review Classifier

Spring 2022

- A movie review classifier using the KNN algorithm to predict positive/negative sentiment on movie reviews outperforming other students with an accuracy of 86%.
- Performed data pre-processing and K-Fold cross-validation.

CS 480/580 Intro Artificial Intelligence, Connect Four Game-Playing Agent

Spring 2021

- Implemented for searching game states to predict the ideal moving scores for players using Min-Max Algorithm.
- Increased the program performance by utilizing the heuristic state-evaluation function and Alpha-beta pruning.
- Applied Dynamic Programming to optimize the program and avoid unnecessary executions.

Miscellaneous Experience

Awards and Volunteering

- Real Talk: U.S Job/Internship Search for International Students Panelist, George Mason University Career Services
- Cloud Innovation Conference Ambassador, TechConnect DC
- Fall 2018 – Fall 2019 and Fall 2020 Dean's List Honor - George Mason University
- Mason Freedom Scholarship - Four-year scholarship awarded for academic excellence at George Mason University - \$28,000

Certifications

- Oracle Certified Associate, Java SE 8 Programmer. Awarded by Oracle.
- Java Foundation Certified Junior Associate. Awarded by Oracle.

SKILLS

Proficient: Python(4 years), Java(3 years with Junit and SpringBoot)

Intermediate: JavaScript(Node.JS and React), Angular, C, HTML5, CSS, JSON

Exposure:Assembly, Common Lisp, R, MATLAB, LaTeX, C++, C#, Go

Databases:MySQL, MongoDB, and Oracle Database

Technologies:PowerShell, Linux, Maven, Git, Azure, AWS Cloud, GCP, VIM, Eclipse, VSCode, Docker