Tianjia Wang

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EDUCATION

Rochester Institute of Technology
M.S.in *Software Engineering*   *Aug 2019 - Now*

Rose-Hulman Institute of Technology
B.S.in *Computer Science*   *Sept 2015 - Aug 2018*
Minor in *Japanese*

Miami University
B.S.in *Computer Science*   *Aug 2013 - May2015*

RELEVANT COURSEWORK

- Data Structures and Algorithm Analysis
- Computer Architecture I, II
- Programming Language Concepts
- Operating Systems
- Artificial Intelligence
- Machine Learning
- Discrete & Combinatorial Algebra I, II
- Engineering Cloud Software Systems
- Engineering Self-Adaptive Software Systems

- Introduction to Probability
- Design and Analysis of Algorithms
- Theory of Computation
- Model-Driven Development
- Collaborative Software Development
- Software Quality Assurance
- Research Methods
- Software Architecture
- Modeling Human Perception Data

PUBLICATION

Eman Abdullah AlOmar, Philip T. Rodriguez, Jordan Bowman, **Tianjia Wang**, Benjamin Adepoju, Kevin Lopez, Christian Newman, Ali Ouni, Mohamed Wiem Mkaouer. "How Do Developers Refactor Code to Improve Code Reusability?" The 19th International Conference on Software and Systems Reuse (ICSR), 2020

RESEARCH EXPERIENCE

Chinese Academy of Sciences   Nov 2018 – June 2019
Student Researcher   *Department of High-Performance Computing*

- Researching on key node detection algorithms for the project RAID Card Bottleneck Analysis and Performance Modeling which aims to build an open-source benchmark tool for performance visualization and predication
- Implementing and optimizing an algorithm for finding RNA sequences similarity in the research paper "Accelerated Structural Design for Graphical Based Genetic Similarity Algorithm"

WORK EXPERIENCE

Sogou Inc.   May 2015 - July 2015
Quality Assurance   *Department of Sogou Map*

- Unit/Functional/Stress testing for several features in Sogou Map Android application
- Excelled in finding, documenting and reporting bugs, errors, interoperability flaws and other issues
- Consistently recognized for excellent problem-solving and analytical skills by developers, project managers and supervisor

COURSE PROJECT

Multimodal Song Emotion Recognition with Audio and Dynamic Facial Expression
- Extracting audio features from song and action units from video(facial expression) in the Ryerson Audio-Visual Database of Emotional Speech and Song
- Training Random Forest and CNN model to identify six emotions
- Performing statistical analysis on the results to evaluate the performance of the multimodal solution

Smart Home Manager
- Designing and implementing a cloud-based solution to enable user to control devices across different protocols in one easy to use web application
- Using CloudFormation to efficiently allocate and manage the resources in AWS by treating infrastructure as code

UML Generator
- Implementing a tool to generate the most essential elements of the UML class diagram for arbitrary Java code: classes, methods, instance variables, and inheritance arrows
- Analyzing requirement and creating UML diagram. Using different design patterns, design principles and applied to a real application with requirement changes.

HONORS AND AWARDS

- Graduate Merit Scholarship from Rochester Institute of Technology
- International Student Scholarship from Rose-Hulman Institute of Technology

SKILLS

- Programming Language: Java, Python, C, C++ and Pascal
- Web Development: JavaScript, Node.js, HTML, CSS
- Database: SQL Server, Firebase, MongoDB, DynamoDB
- AI: PyTorch, scikit-learn, TensorFlow
- Natural Language: Chinese(native), English(fluent), Japanese(intermediate)
- Mobile Development: Android
- Web Framework: React, Flask
- Operating System: Windows, Linux
- Script: Shell Script, TypeScript