Yongwei Yuan

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EDUCATION

University of Michigan, Ann Arbor Ann Arbor, MI
B.S. in Computer Science, GPA:3.85/4.00 *Sept. 2018 - May. 2020(Expected)*
Shanghai Jiao Tong University Shanghai, China
B.S. in Electrical and Computer Engineering, GPA:3.50/4.00 *Sept. 2016 - Aug. 2020(Expected)*

RESEARCH EXPERIENCE

Research Assistant, supervised by Professor Omar
EECS department, University of Michigan *Sept. 2019 - now*

- Improve the usability of variables in Hazel, a live functional programming environment featuring typed holes
- Detect if the cursor is on a variable and locate where it is used even in incomplete programs
- Add inline notation to indicate the total number of variable usage and add footer to indicate the variable usage outside of viewport if any
- Integrate new secondary notations into Hazel, exposing hidden dependencies between the binding site and variable usage to programmers

Research Assistant, supervised by Professor Kasikci
EECS department, University of Michigan *Apr. 2019 - now*

- Build a prototype framework for evaluating bug detection and root cause diagnosis tools
- Reproduce various bugs in docker containers, involving hacking into the codebase and transforming LLVM IR when necessary
- Dive into the codebase of large-scale software systems to analyze root cause for specific bugs

Research Assistant, supervised by Professor Dillahunt
School of Information, University of Michigan *Jun. 2019 - now*

- Provide back-end support for review-me, a system dedicated to provide expert resume feedback for job seekers
- Automate the process of reviewing resumes and providing feedback by taking advantage of crowdsourcing

PROJECTS

Video Streaming via CDN *Oct. 2019*

- Build a video content distribution network to provide reliable and adaptive video streaming for users
- Adapt the video bitrate to the current throughput within the HTTP proxy
- Spread the load of serving videos among a group of servers based on shortest geographical distance

Insta485 *Mar. 2019*

- Build an Instagram-like web application using client-side dynamic pages
- Create a database to organize, store and retrieve data related to users and posts
- Implement a REST API for the server to interact with the database and take advantage of cookies when available
- Offer users a smooth interaction and reduce server load by integrating React into the application

The Hitchhiker's Guide: Home *Jan. 2019*

- Develop a 2D visual novel game with Unity and *C#*
- Create a node-based dialogue system from scratch
- Set up a borderless game map with a basic event system

AWARDS

Honorable Mention, Mathematical Contest in Modeling Apr. 2017

SKILLS

Programming Languages : C, C++, C, Python, Javascript, Java, Reason, standard ML