Jiadi (Tian) Luo

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in linkedin.com/in/jiadil1010 github.com/jiadil jiadil.github.io/portfolio

Education

Northeastern University | San Jose, CA, United States　　　　　**Sep 2024 – Aug 2026 (Expected)**
Master of Science in Computer Science

Simon Fraser University | Burnaby, BC, Canada　　　　　　　　　**Sep 2020 – Apr 2024**
Bachelor of Science in Computer Science　　　　　　　　　　　　　　　　　　　GPA: 3.81
Relevant Courses: Data Structures/Algorithm, Operating System, Database System, AI, Computer Networks, OOP

Experience

7Sage　　　　　　　　　　　　　　　　　　　　　　　　　　**Vancouver, BC, Canada**

Backend Software Engineer　　　　　　　　　　　　　　　　　　　　　*May 2023 – Apr 2024*
- Developed and maintained a responsive LSAT prep website for **200,000+** users using JavaScript, React, Vue.js, PHP, MySQL, Node.js, and Docker
- **Role-Based Access Control**: Implemented a custom access control system for secure LSAT content delivery based on user roles, using metadata logic and access level validation
- **Database Optimization**: Improved MySQL query performance and reduced load times through composite indexing, query restructuring, and database-level caching, leveraging AWS RDS cloud-hosted databases
- **Live Classes**: Developed a platform for tutors to schedule and post live classes with localized time displays for users, using the Zoom API and PHP's DateTime, boosting revenue by **15%**
- **Automated Email System**: Built a purchase confirmation email service with a customizable template, using POST requests for local testing in Docker, and enabling live delivery through a RESTful API in production

Frontend Software Engineer Intern　　　　　　　　　　　　　　　　　*Sep 2022 – Apr 2023*
- Developed the core live classes service, currently used on the 7Sage events page, featuring responsive layouts and custom animations, contributing a **10%** increase in monthly active users
- Integrated a dynamic LSAT practice set generator to enhance learning experiences with real-time difficulty adjustments and interactive feedback, using Vue.js and async data fetching
- Enhanced UI and UX by improving **40+** features, such as LSAT exam statistics display, optimizing highlighting, implementing interactive comment boxes, and restructuring site navigation, resulting in increased user engagement

Simon Fraser University | ixLab　　　　　　　　　　　　　　　**Burnaby, BC, Canada**
Research Assistant | Advised by Dr. Lawrence Kim　　　　　　　　　　　　*May 2023 – Aug 2024*
- Led in-person lab studies and conducted usability testing to explore the influence of anthropomorphism, robot quantity, and motion patterns on human cognition and emotional responses, presented at CHI '24 conference in Honolulu, Hawaii
- Programmed NAO and Sony Toio robots to execute interactive behaviors using Choregraphe and C# Unity scripts
- Developed innovative AR-based and DR-based solutions to address the fear of public speaking via HoloLens2

Projects

Divide and Conquer Game | *Java, Socket, TCP Protocol, Multi-threading*　　　　**Apr - Aug 2023**
- Led a team of 5 to develop a multiplayer game with concurrent gameplay through shared object interactions and locking
- Developed a Java client-server system through TCP sockets, with a UI built using the Java Swing library

myChannels | *C, Linux, Multi-threading, Scheduling, Operation System*　　　　**Apr - Jul 2023**
- Built a Linux OS from scratch, featuring a Kernel, Memory Management, and interactive shell
- **Kernel:** Managed process life cycles through safe concurrent thread processing using the pthread library
- **Memory Management**: Implemented dynamic memory allocation and synchronization for efficient resource handling
- **Interactive Shell:** Supported built-in commands like ls and configurable options for buffer size and thread count

Publications

- **J. Luo**, V. Domova, & L. H. Kim. 2024. Impact of Multi-Robot Presence and Anthropomorphism on Human Cognition and Emotion. *CHI '24*. https://doi.org/10.1145/3613904.3642795
- S. Pulatova, **J. Luo**, *et al.* 2023. Swarmfidget: Exploring Programmable Actuated Fidgeting with Swarm Sobots. *UIST '23*. https://doi.org/10.1145/3586182.3615806

Technical Skills

Languages: Java, JavaScript, C++, C, C#, Python, HTML/CSS, SASS, SQL, PHP, Rust, Haskell, TypeScript, Bash
Tools and Frameworks: Git, IntelliJ, VSCode, MySQL, Node.js, TablePlus, XAMPP, MongoDB, Postman, SPSS, GitHub, Docker, WordPress, React, jQuery, Bootstrap, Unity, Figma, R, MATLAB, Express.js, JUnit, AWS, A/B Testing, Jira