Shaolong Li

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Education

University of California, San Diego

September 2023 - May 2025

Master of Science in Computer Science

GPA:3.74

University of California, San Diego

September 2019 - March 2023

Bachelor of Science in Cognitive Science(w/Machine Learning), Computer Science Minor

GPA:3.86/Major 3.97/Minor 3.9

Experience

Dassault Systèmes

June 2025 - Present

Software Engineer - Test Automation

San Diego, CA

- Configured Geb framework with Spock, Gradle, and Selenium to automate UI testing for the Biovia Machine Learning Workbench project, significantly increasing test coverage and efficiency. Proactively maintained and updated outdated test cases to support secure and timely product delivery.
- Implemented 50+ reusable Geb pages and modules in **Groovy** to encapsulate frequently used UI components, enhancing test automation scalability and improving framework maintainability.
- Developed and maintained CI/CD pipelines using Jenkins and GitLab CI, enabling automated test execution on code commits and accelerating the release cycle.

METY Tech

June 2024 – September 2024

Software Engineer

San Diego, CA

- Designed and implemented a referral-based discount system, designed database structures and backend logic for promo code validation, discount application, and influencer payment tracking.
- Optimized the **Django** back-end API services for user health plan functionality, reducing API call response time and improving platform efficiency by 30%, while fixing various front-end issues with **React** to enhance **UI/UX**.

UCSD TripleC

February 2023 - December 2023

Software Engineer

San Diego, CA

- Developed and tested back-end **RESTful** API services using the **Spring** Framework, integrating unit testing with JUnit and Mockito to ensure robustness and reliability of API functionalities
- Implemented JWT-based authentication for the mobile app using **Spring Security** with Auth0's SDK, enhancing user data security and enabling seamless sign-ins without repeated credential entry.

UC San Diego Jacobs School of Engineering

January 2022 - March 2023

Instructional Assistant

San Diego, CA

- Worked with other IAs to develop a framework for teaching the implementation of advanced data structures using C++. Held weekly lab hours, dedicating 25 hours per week, to help students with their programming assignments.
- Participated in lectures to support the instruction of Unsupervised Machine Learning Algorithms. Graded homework, and conducted weekly discussion to aid students in comprehending complex concepts presented in lectures.

Projects

BlogApp | React, Node.js, Express.js, MongoDB, Redux, Redis, Docker

- Designed and implemented a RESTful API service using Node.js and Express.js to handle CRUD operations on a MongoDB database.
- Developed dynamic webpages with **React**, **Tailwind CSS**, and **Flowbite**, enabling users to publish, modify, like, and comment on posts. Created a comprehensive admin dashboard for monitoring blog activity and managing posts, comments, and user accounts.
- Integrated secure authentication with JWT and Google OAuth for seamless signup and login. Utilized Redux **Toolkit** for efficient state management and **Firebase** for image hosting.
- Containerized the application using **Docker** to ensure consistent environment configurations, and simplify deployment across different platforms.

Custom Autodiff Framework | Python, Scikit-learn, Transformer, ML System

- Developed a custom Automatic Differentiation framework from scratch in **Python**. Implemented core operators in a fused fashion to optimize both forward pass computations and backward pass gradient calculations.
- Leveraged the custom Automatic Differentiation library to implement and train a **Transformer** model using the MNIST dataset, achieving an 87% test accuracy.

Technical Skills

Languages: Python, Java/Groovy, C++, HTML/CSS, JavaScript, SQL, GraphQL, Haskell, Golang

Database: Relational(MySQL, PostgreSQL), NoSQL(MongoDB)

Frameworks: Django, Spring Boot, React.js, Redux, Recoil, Node.js, Express.js, Vue.js, Nest.js, Tailwind CSS, Geb/Spock