LUNA HUAYUE LU

Graduate Student in Computer Science and Engineering

Email: huayue.lu.work@gmail.com   Personal Website: https://luna-lu.netlify.app

GitHub: https://github.com/wahyeung | Phone: (959) 444-2898 | LinkedIn: www.linkedin.com/in/huayuelu666/

SUMMARY

Computer Science Graduate with expertise in full-stack (MERN) development, back-end development, data analysis, cloud computing (AWS), and software testing. Specialized in MERN Stack, RESTful APIs, and AWS services for scalable web applications. Contributed to high-profile projects (Apple, Google) with a focus on quality assurance, including regression testing, AI testing, and using tools like Jira and TestRail. Proven ability to build user-centric interfaces, robust backend systems, and apply data analysis and visualization techniques.

SKILLS

- **Programming Languages:** Python (Proficient), Ruby, Java, JavaScript, C, lisp, Matlab, TypeScript, Shell Scripting
- **Testing&QA**: Mobile Automation Testing, XCUITest, Regression Testing, AI Testing, Visual QA, Accessibility Testing, AI Testing, API Testing, Selenium, WebDriverIO
- **Automation Tools:** Selenium, DevTools, Appium, TestRail, Cypress, Xcode, Android Studio, ChromeDriver
- **Development & Cloud Tools:** Git, AWS, Azure, Jenkins, Linux, Windows, MacOS, Docker, CI/CD, DevOps, Jira, SDLC
- **Project Management**: Agile Methodology, Project Timelines, Bug Tracking, Reporting

WORK EXPERIENCE

Quality Assurance/ Software Testing   **Work & Co** | Brooklyn, NY | June 2024 – August 2024
- Contributed to three major projects for high-profile clients, including **Apple, Google,** and **Gatorade**.
- Utilized **Jira** and **TestRail** for logging and tracking testing tickets, **DevTools** for debugging, and implemented **Agile** methodology to ensure smooth project delivery.
- Applied **regression testing**, **accessibility testing**, **performance testing**, **automation testing, Visual QA**, and **AI testing** to maintain high standards of quality across all projects.
- Independently completed the logging and testing of tickets, and performed feature testing on Google devices using Esper to ensure seamless functionality.

Backend Developer   **Budgetwise** | Remote | Sept 2024 – Present
- Developed backend solutions for AI-powered iOS, Android, and web applications to manage personal finance using **Express, Node.js, REST API, and Firebase**
- Integrated **Plaid and Stripe** APIs to securely connect to users' bank accounts and process financial transactions
- Led the refactoring of the existing codebase and authored clear, comprehensive documentation using **Postman** to streamline API testing and integration.

PROJECT EXPERIENCE

MERN Stack Book Store Application | ReactJS, NodeJS, Express, MongoDB, RESTful API, UI/UX
- Designed and developed a dynamic user interface using **ReactJS** with modern features.
- Built a robust backend API with **NodeJS** and **Express**, featuring **RESTful API** endpoints.
- Employed **MongoDB** for efficient data storage and retrieval.
- Implemented **user authentication** and authorization platform access.

Kubernetes CI/CD Pipeline with Jenkins | Jenkins, Kubernetes, Docker, ArgoCD, SonarQube
- Developed a CI/CD pipeline using **Jenkins** to automate build, test, and deployment in **Kubernetes**.
- Configured **SonarQube** for static code analysis, enforcing quality gate checks to ensure high code standards.
- Automated **Docker** image creation and pushed to **Docker Hub**, with deployment manifests updated for CD.
- Utilized **ArgoCD** for **GitOps**-based continuous deployment, automating application rollouts to Kubernetes clusters.

AuthenticationSeq Backend | Node.js, Express.js, PostgreSQL, Sequelize, Google Cloud Platform(GCP), JWT
- Designed and implemented **RESTful APIs** for user authentication and authorization using Node.js and Express.js.
- Managed complex database interactions using **Sequelize ORM** with **PostgreSQL.**
- Integrated Google Cloud Storage for robust handling file uploads.
- **Implemented advanced features** like API pagination and dynamic user friendships, enabling users to interact and navigate through large data sets effectively.

- Engineered JWT-based authorization to secure endpoints and maintain user sessions, ensuring a secure user environment.

E-Commerce Automation Testing with Selenium | Python, Selenium WebDriver, ChromeDriver
- Conducted initial **manual testing** of an e-commerce website, identifying and documenting **37 critical bugs** that directly influenced the development of a comprehensive automation strategy.
- Developed an end-to-end **automated testing** script for an e-commerce website using **Python** and **Selenium WebDriver**, enhancing the reliability of user interactions and transactions.
- Automated key actions like login, product selection, cart management, and checkout, mimicking real user behavior.
- Validated transaction success by confirming unique order number generation, and captured final state with screenshots for documentation, achieving an improvement in the testing protocol's effectiveness.

AWS Web Calculator Application | AWS Amplify, Lambda, API Gateway, DynamoDB, HTML
- Engineered a web-based calculator using **HTML** and deployed through **AWS Amplify**.
- Implemented serverless backend logic in **AWS Lambda** and connected it via **API Gateway**.
- Managed application data using **AWS DynamoDB**, ensuring scalable and efficient storage.

PUBLICATION
- **Huayue Lu** and Xinran Zhou**. "**Improved On-Device Hyperdimensional-Computing-Based Image Segmentation." 2023 IEEE the 3rd International Conference on Intelligent Technology and Embedded Systems(ICITES)

EDUCATION

Graduate Student in Computer Science and Engineering   University of Connecticut (UCONN) | Storrs, CT, USA
Jan. 2023 - **Dec. 2024** (Expected)   GPA: **3.78/4.0**
Non-degree Student in Computer Science and Engineering   University of Connecticut (UCONN) | Storrs, CT, USA
Sep. 2021 - May. 2022   GPA: **3.60/4.0**