Ryan Sabouri

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EDUCATION

University of California, Irvine **Dec 2024**
B.S. in Computer Science (GPA: 3.70)

TECHNICAL SKILLS

Languages: Java, Python, C, C++, HTML/CSS, JavaScript

Cloud/DevOps: AWS (Lambda, EC2, S3, Step Functions), Docker, Kubernetes, Jenkins, Apache Tomcat

Databases: MySQL, Apache Cassandra, MongoDB, Spark/EMR

Tools: Git, Apache Maven, Linux, Postman, Arduino/ESP32, VSCode, Eclipse, Xcode, Vim

EXPERIENCE

Software Engineer Intern **June 2024 - Aug 2024**
Capital One | Richmond, VA

- Built AWS Step Function workflow with Python/Lambda for automated data reconciliation.
- Processed data via EMR cluster (Java Spark) and Apache Cassandra database.
- Logged transactions to S3 for auditing; implemented pre-processing validation checks.
- Enhanced data integrity for customer demographics through configurable logic.

Lab Assistant (ICS 46: Data Structure Implementation & Analysis) **Sep 2023 - Dec 2023**
UC Irvine | Irvine, CA

- Assisted 50+ students in core data structures (BSTs, hash tables, graphs) and algorithmic concepts.
- Debugged C++ code to resolve memory leaks, pointer errors, and logic issues.
- Taught Git workflows and IDE tools (VS Code/Vim) for efficient debugging and version control.
- Advised students on assignment strategies using first hand expertise from prior course completion.

PROJECTS

Fabflix (https://github.com/sabouriryan/Fabflix)

- Flixster-like Movie database website with MySQL (100k+ entries), full-text search, and autocomplete.
- Integrated HTTPS, reCAPTCHA authentication, and password encryption for security.
- Hosted on AWS EC2 with Apache Tomcat, master-slave config, and load balancing.
- Optimized performance for high-traffic scalability and reliability.

Search Engine (https://github.com/sabouriryan/SearchEngine)

- Python engine parsing 10k+ JSON files via BeautifulSoup/Regex for rapid queries.
- Implemented inverted index and tf-idf scoring to rank result relevance.
- Achieved <300ms response time under strict operational constraints.
- Streamlined data extraction and query precision for improved user experience.

illumiNET (https://github.com/sabouriryan/LightAdjusterApp)

- Designed Arduino-PWM system for dynamic LED brightness control.
- Developed RESTful API for real-time slider-based intensity adjustment.
- Hosted onboard ESP32 web server to handle HTTP brightness requests.
- Achieved sub-100ms latency with optimized data handling and error protocols.