Leslie Liang

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EDUCATION

University of California, Los Angeles   Los Angeles, California
Bachelor of Science in Computer Science; GPA: 3.3/4.0   *September 2015 - June 2019*
Relevant Coursework: Operating Systems Principle, Introduction to Algorithms and Complexity, Database Systems, Programming Languages, Introduction to Web Applications, Software Engineering, Computer Systems Architecture, Computer Network Fundamentals

SKILLS

- **Languages**: C, C++, Java, Python, SQL, HTML, CSS, JavaScript, PHP, Scheme, Prolog, OCaml
- **Technologies**: Angular, Express.js, Node.js, MongoDB, Apache Tomcat, Java Servlet, JSP, Bootstrap, Git, GitHub, Docker, Virtual Box, Linux

EXPERIENCE

Northrop Grumman Corporation   Los Angeles, CA
Software Engineer   *June 2019 - Present*
- Designed and implemented user features in a web-based user interface for command and control software system
- Increased operational efficiency for users by creating shortcut buttons for predefined system commands
- Built a token retrieval system to allow multiple users to manage control of the system via a command token
- Implemented a pop-up alert to notify the user of running background processes when leaving the web page user interface
- Designed and tested feature that forces logout from all open tabs automatically when user logs out in one of them
- Used EventEmitter to intercept alarming messages in Node.js and generate alarming statistics to be presented in the frontend display
- Implement security features to restrict users with insufficient read/write permissions from accessing certain widgets by using structural directives

Alcatera   Los Angeles, CA
Software Engineer Intern   *June 2018 - September 2018*
- Extended an existing codebase by implementing a debug mode feature which helped our system engineers debug the hardware
- Built a server in C++ from the ground up by using the "select" system call to handle multiple incoming client connections and also used the SSL protocol to encrypt data transmitted over the network to provide privacy
- Wrote unit tests to test the robustness of each individual component before integration testing

PROJECTS

- **Movie Database Website**:
  - Interacted with the MySQL database to create tables, populate the database using our movie and actor data, add "integrity constraints" that the database should satisfy
  - Wrote a few PHP pages that execute various queries to find the information requested and to render the page in a user-friendly format
- **Proxy Server Herd**:
  - Wrote an application proxy server herd that uses a flooding algorithm, implemented using Python's asyncio framework, to propagate clients' location data to neighboring servers
- **Internet of Things Security**:
  - Created applications that run in an embedded system, read data from external sensors and send reports back to a network server through both encrypted and unencrypted channels
- **Blogging Web Application**: A web application that is written using the MEAN stack that allows users to create, read, update, delete posts
  - Implemented a blogging server using Express, MongoDB and NodeJS that saves and publishes blog posts written by the markdown-editor client
    - ∗ Verified users' login credentials and established an "authenticated session" by setting a transient session cookie; the cookie is created as a JSON Web Token
    - ∗ Wrote a REST API that allows the front-end to perform CRUD operations on the blog posts
  - Implemented a front-end markdown blog editor and preview as a single-page application by using Angular as the front-end framework
    - ∗ Used Angular **Router** to enable navigation from one view to the next as user perform application tasks; for example, after a post is deleted, the updated list pane should now be shown, the user does not need to refresh the page to see the changes
    - ∗ Created **services** to perform HTTP requests by using the API set up by the backend to perform CRUD operations on blog posts

ADDITIONAL EXPERIENCE & ACTIVITIES

- UCLA MentorSEAS
  - Act as a mentor to a small of group first-year students in computer science by giving them guidance and lessons learned to help ease the learning curve of UCLA Engineering
- Association for Computing Machinery(ACM), UCLA