Danny Pham

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EDUCATION

UNIVERSITY OF CALIFORNIA, IRVINE — Irvine, CA
Bachelor of Science, Computer Science (GPA: 3.84/4.00) — Sep 2016 - Jun 2020

EXPERIENCE

FLEXPORT, INC. — San Francisco, CA
Software Engineer Intern — Jan 2020 - Present

• Optimized contract data validation tool by integrating additional automated data checks to eliminate false positives when validating shipment and container rates; increased contract coverage from 2.9% to 62%, yield from 40.2% to 96%, and accuracy from null to 72%, ultimately achieving and **exceeding quarter OKR**.
• Automated process of uploading documents sent by carriers, which sums to about 6500+ documents monthly and roughly 60 seconds to identify and process each email (about 108 hours monthly), by building an email processor using **Rails** to consume and process emails and its attachments; this reduced the workload of the ocean freight operations team, eliminated the time latency of documents uploaded, and reduced the chance of documents being skipped.
• Improved contract parsing algorithm using **Ruby** to more accurately detect and select base freight rates and shipment surcharge costs to assist the carrier dispute process; projected to detect and dispute 2% of all ocean contracts, resulting in net revenue increase of $20 million.
• Implemented routing algorithm to compute and resolve vessel voyage differences once changes are made by a carrier; integrated SendGrid service to immediately notify affected parties.
• Developed a new workflow process and dashboard filled with procurement tools in **React.js** and **GraphQL** to allow global operations to automate and perform carrier contract digitization and validation; decreased time spent per contract by 37.4%.

NASA JET PROPULSION LABORATORY — Pasadena, CA
Flight Software Engineer Intern — Sep 2019 - Dec 2019

• Implemented surface flight software in a web application using **React.js** and **Redux**, enabling engineers to perform high-fidelity simulation of nominal rover mobility such as arm and turret command sequences.
• Integrated 3D meshes generated from stereo imagery collected by the rover in **C++** to perform position and altitude estimates during the simulation.
• Automated fuzz tests using a **Python** script and cron jobs, executed over 160 simulations daily which resulted in discovering over 20 command sequences that led to failures.

AMAZON — Seattle, WA
Software Development Engineer Intern — Jun 2019 - Sep 2019

•Built RPC in Java to generate translation sidecars, enabling Kindles to perform text translations without internet connectivity; scaled to support over 200 digital books and 25 languages.
•Developed Kindle API in C++ to efficiently detect and fetch data from translation sidecars and display results within 1.5 seconds.
•Integrated concurrency to perform translations in batches, reducing total running time by 84%.

SIEMENS PLM SOFTWARE — Cypress, CA
Software Engineer Intern — Jan 2019 - May 2019

• Built a centralized inspection tool in **C++** that utilizes multiple internal services to provide users with the flexibility to select and execute different tests and access results in a single consolidated system.
• Optimized inspection service's scalability by restructuring library content and migrating over 20 legacy constructs.

PROJECTS

CODERPAD — coderpad.dannyhp.com

• Deployed a web-based collaborative coding platform on **AWS** to allow users to simultaneously write, edit, and execute code.
• Built a source executor with **Python** and **Docker** to compile and execute a user's Python, Java, or C++ source code.
• Designed a **RESTful API** to transmit the results of a user's compiled code as well as build and runtime errors.

PASTEBIN — pastebin.dannyhp.com

• Launched a text storage application to allow users to create and share snippets of text through uniquely generated links.
• Designed system to generate UUID for each paste in order to avoid duplication and collisions; configured database to optimally store and retrieve thousands of records.

SKILLS

• **Programming:** Python, Java, C++, Ruby, SQL, JavaScript, HTML, CSS, Bash, LaTeX
• **Frameworks and Libraries:** React.js, Node.js, GraphQL, Spring, Rails, Flask, PyTorch, NumPy, Matplotlib, pytest, JUnit, Mockito
• **Tools:** Agile, Git, Docker, CI/CD, Amazon Web Services, Google Cloud Platform, Apache, NGINX, Linux, Datadog, Periscope