ERIK PHI NGUYEN

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WORK EXPERIENCE

Quality Engineer, *Alloy Processing*   Aug. 2023 - Feb. 2024

- Revitalized a critical ongoing/abandoned 5-year project for chemical processing approval for Bombardier Aerospace, completing it within the first quarter of tenure – this achievement secured $500k/year of work for the company over 3 years.
- Strengthened the Quality Management System (QMS) by meticulously reviewing and revising over 50 Standard Operating Procedures (SOPs) resulting in a 95% reduction in non-conforming findings from external auditors.
- Maintained 100% customer retention by meticulously crafting qualification packages demonstrating compliance with specifications and promptly addressing non-conformance reports (NCRs) in order to foster high-quality standards and strong client relationships.

Software Engineer, *Freelance*   Aug. 2022 - Aug. 2023

- Designed and built responsive websites, optimizing them for fast loading times and seamless user experience by employing image compression techniques, lazy loading, and asynchronous scripting to achieve a 30% improvement in page load speed.
- Developed RESTful APIs and integrated them with the frontend using Node.js and Express.js, significantly reducing data retrieval times and server response delays, leading to a 40% improvement in application performance.
- Utilized SQL and database optimization techniques to refactor complex queries in a data-intensive application, reducing query execution times by 50% and enhancing overall data retrieval efficiency.

Quality Administrator, *Valence Surface Technologies*   Contract 2021 - 2022

- Enhanced overall efficiency and turn-around by providing training to a team of operators on advanced anodizing techniques, such as utilizing current rather than voltage for hard coat anodize, to produce parts for reputable aerospace companies such as SpaceX.
- Contributed to significant cost savings for the company by conducting over 100 non-conformance reports, implementing quality control measures in-house and supervising operators on a regular basis to reduce errors.
- Developed and implemented automated Pareto charts that were utilized by all departments resulting in significant time savings and providing consistent company error reports and error percentages.

Research Assistant, *Stanford University*   March 2019 - April 2020

- Orchestrated a diverse array of experiments with meticulous precision, adeptly following methodical processes and ensuring steadfast attention to accuracy at every stage of the research journey.
- Conducted comprehensive analysis and compilation of water quality research tests (e.g turbidity, flow rates, and tracer tests) on columns with varying oxidation states and mediums such as bio-charcoal, sand, and manganese oxide sand.
- Performed extensive literature review, identified and resolved daily operational issues, such as inadequate flow rate to columns, and conducted daily sampling and analysis of treated water.

PROJECTS

wearbnb | *(JavaScript, React/Redux, Node.js, Express.js, Sequelize, PostgreSQL, AWS S3, CSS3)*   **live** | **github**

- Architected and implemented robust RESTful APIs using Node.js and Express.js for the backend, granting authorized users full CRUD capabilities to efficiently manage owned brands and interact with user-generated content in the web application boasting social media-like features, all powered by a React/Redux frontend.
- Supported the Software Development Life Cycle by providing essential contributions to system requirement analysis, design, and implementation of the web application using React/Redux (frontend) and Express.js (backend).
- Built a reservation system using a combination of Express and React/Redux, allowing users to book and view their preferred brands, as well as costs, through a dedicated booking tab which fosters user engagement.

Accord | *(Python, React/Redux, Flask, SQLAlchemy, Websockets, CSS3)*   **live** | **github**

- Spearheaded the Software Development Life Cycle (SDLC) by leading the frontend and backend development of Accord, prioritizing crucial features like User Authorization, User Routing, and the Landing Page for streamlined project completion.
- Troubleshot technical problems and incorporated websockets (socket.io) to add live chat functionality, effectively showcasing problem-solving skills and fostering collaboration during the 100+ hours of development.
- Proactively improved the UI/UX by focusing on frontend development using React/Redux, making Accord familiar and easy to navigate for users accustomed to Discord with features like servers, channels, and live chat.

SKILLS

Languages: JavaScript, TypeScript, Python, GraphQL, SQL, HTML5, CSS3, MATLAB

Frameworks/Tools: React, Redux, Node.js Express.js, Next.js, Flask, Sequelize, SQLAlchemy, PostgreSQL, AWS (S3, Lambda, Amplify, DynamoDB), Sharp, Docker, Websockets, Mocha, Chai, Playwright, AutoCAD, LabVIEW, Pro II

Key Skills: Pair Programming, Test-Driven Development, Object-Oriented Programming, Agile/Scrum Methodologies, Root Cause Analysis

EDUCATION

App Academy - *Full-Stack Software Engineering, Sept. 2022*

California State University, Long Beach - *B.S Chemical Engineering, Aug. 2020*