# **ERIK PHI NGUYEN**

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### **WORK EXPERIENCE**

#### **Quality System Engineer**, Hydrafacial

May. 2024 - Current

- Independently managed and optimized the electronic Quality Management System (eQMS), configuring stringent criteria for user access to MasterControl, reducing unnecessary accounts by 80%, thus saving the company \$480k annually.
- Directed the shift from a paper-based system to an electronic one with MasterControl's Advanced Quality Event Management (AQEM), streamlining workflows and boosting efficiency by 50% through quicker inter-departmental collaboration.
- Enhanced the Quality Department's data analysis capabilities by upgrading Pareto graphs in PowerBI, writing DAX expressions to create legacy Measures, improving user efficiency by 95% by enabling quick identification of Failure Modes and Root Causes.

#### Quality Engineer, Alloy Processing

Aug. 2023 - Feb. 2024

- Revitalized a critical, dormant 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

Sept. 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.

#### Water Quality 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.

# **SKILLS**

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

Frameworks/Tools: PowerBI, 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, Microsoft Office

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

#### **EDUCATION**

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

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

Certifications: Advanced Quality Event Management System (MasterControl, May 2024)