Luke **Hiura**

Backend Developer · Software Engineer

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"Be the change that you want to see in the world."

Summary

Currently a Software Engineer at a stealth startup, focusing on innovative software development in a dynamic, technology-driven environment. With a diverse background in chemical and hardware engineering, I excel in roles that require both technical and analytical skills. Actively pursuing a Master's degree in Computer Science at Georgia Institute of Technology, specializing in Machine Learning, and constantly expanding my skillset in software development, data science, and AI.

Education

University of California Riverside — *Riverside, CA*

B.S. in Chemical Engineering — *Sep. 2017 - 2019*

Georgia Institute of Technology — *Atlanta, GA*

M.S. in Computer Science — *Jan. 2023 - Current*

Projects

Personal Project — *Apr 2023 - Present*

Full-Stack Web Development

- Developed a proof of concept web application showcasing web development skills using Flask/Jinja2, HTML, CSS, and JavaScript.
- Implemented front-end components and back-end functionality, including user authentication, MongoDB operations, Docker containerization, password encryption, and AWS Beanstalk deployment.
- Employed optimization techniques for faster loading speed and applied industry best practices for version control, code documentation, and coding standards.
- Skills used: Cloud Development, Agile Development, Git, MongoDB, Flask, Node.js, React.js, HTML, CSS, JavaScript.

Data Science/ML Project

Kaggle Competition

- Utilized advanced Decision Forest techniques and TensorFlow for Linear Regression Models in a Kaggle competition focusing on housing price predictions.
- Leveraged statsmodels API to develop robust Ordinary Least Squares (OLS) models, optimizing for accuracy.
- Demonstrated expertise in machine learning techniques for predictive modeling.
- Skills used: Agile Development, Git, TensorFlow, statsmodels, Machine Learning.

Work Experience

Sequelae — *Santa Clara, CA/USA*

Software Engineer (Backend) — *May 2022 - Present*

- Designed and implemented an advanced healthcare analytics platform using FastAPI, integrating with Google Cloud services for real-time data processing and insights generation.
- Leveraged pandas for data analysis and matplotlib for visualization, enabling the communication of personalized health insights derived from biometric data to users.
- Developed robust back-end services and ETL pipelines for OAuth validation and API requests, enhancing system security and data integrity.
- Integrated the platform with Fitbit, Garmin, AppleHealthKit, and Dexcom for CGM/Sleep/HR monitoring, providing comprehensive health insights to users.
- Implemented Data-Driven Design for visualizing health insights, improving user engagement through interactive infographic applications.
- Engineered Backstage.io as the code foundation to facilitate rapid iteration and reuse of LLM toolkit features by development teams.
- Focused on improving system availability, performance, and customer experience monitoring; implemented automated localization for global reach.

Woven by Toyota (Formally Lyft Subsidiary) *Santa Clara, CA/USA*

Quality Assurance Engineer *Oct 2021 - Apr 2022*

- Developing, debugging, and troubleshooting test scripts in Python and Bash for stress testing compute and storage module performance in vehicles, including on the AGX Xavier platform.
- Identified and validated defects through comprehensive testing of serial communication protocols (TCP/IP, CAN, UART) using real-world scenarios, test cases, and data analysis.
- Conducted performance testing and analysis using Buildkite and Mode Analytics to assess system performance, scalability, and stability, and provided recommendations for optimization and improvements.
- Developed test scripts for GNSS antennas to evaluate functionality and performance before vehicle installation.
- Designed reliability testing for CAN (Controller Area Network) forwarding services to validate signal integrity, directionality, and message sequencing using accelerated life testing techniques.
- Implemented openHTF to optimize hardware reliability in a fleet of vehicles, resulting in enhanced fleet performance and customer satisfaction.

Velox Biosystems *Irvine, CA/USA*

Biomedical Engineering Intern *May 2019 - Dec 2019*

- Engaged in Development of lab-on-chips for analysis of urinary tract infections, bloodstream infection, cancer liquid biopsy, and antibiotic susceptibility testing using a comprehensive droplet digital detection system.
- Optimized the detection of amplification through methods of qPCR and ddPCR, and specified targets using fluorescence chemistry and a 3D particle counter to enhance diagnostics' speed and accuracy.
- Contributed to the development of automated systems for efficient and accurate diagnostic testing.
- Applied Lean Six Sigma methodologies for process optimization and quality improvement in laboratory settings.
- Developed proficiency in R programming language for data analysis and experiment automation.

Certificates

2023 **AWS Certified Advanced Networking - Specialty**, Amazon Web Services (AWS)

2022 **AWS Certified Security - Specialty**, Amazon Web Services (AWS)

2022 **AWS Certified Solutions Architect – Professional**, Amazon Web Services (AWS)

2021 **R Programming**, Johns Hopkins University, Coursera *CZA8UVPG4P43*

2021 **The Data Scientist's Toolbox**, Johns Hopkins University, Coursera *8TPNQJZQUY5C*

2020 **Lean Six Sigma Green Belt**, American Society for Quality (ASQ) MENA