HENRY LEE

henryleeqiheng@gmail.com | (612) 987-7627 | linkedin.com/in/henry-lee-qh

EDUCATION

B.S. Computer Science, University of Minnesota, GPA: 3.78 / 4.00 **Jan 2019 – Dec 2021**

Coursework: Algorithm and Data Structure, Operating Systems, Machine Architecture, Computer Network, Database Systems, Intro to Artificial Intelligence, Distributed Systems

Teaching assistant: Algorithms and Data Structure

SKILLS

Languages: Java , Python , C , C++ , JavaScript , PHP , SQL , MySQL , OCaml

Technologies: React , Python Django , Node.js (Express) , Flutter , AWS , Git , Jenkins , scikit-learn, Pandas, Docker

EXPERIENCES

Software Engineer – SRE Intern @ LinkedIn Corporation **June 2021 – August 2021**

- Developing a Dynamic Model Training tool for indirect capacity measurement using Python and scikit-learn.
- Implementing machine learning for QPS estimation by correlating different granularity of logic groups CPU data.
- Solved traffic training data reliability issue by implementing an anomaly detection algorithm for training models.
- Conducting data analysis on past model scores and training datasets with the team to determine benchmarks.
- Expected recovery of trained model eligibility and reliability by 57% with different training algorithm.

Software Developer @ School of Architecture – UMN **March 2021 – May 2021**

- Developed an application on world map energy games for students with React Native, Node.js and MySQL.
- Implemented MapBox for the different layers of world map visualization on worldwide energy data.
- Automated weekly different energy data scraping with Python integrated with Selenium from different sources.
- Integrated Pandas for data processing and data cleansing for removing duplicates, fixing structural errors, and handling missing values.

Software Engineer Intern @ Intel Corporation **May 2020 – Aug 2020**

- Worked on building internal automation tools and pipelines in the Programmable Solutions Group (PSG).
- Automated 20% of operation by developing a deep dive analysis tool with Python & Pandas using Jenkins.
- Flagged 33% of machine failures by integrating data analysis and visualizations with Site Reliability Engineers.
- Implemented machine learning in scikit-learn to predict regtest progressions by correlating 1.6 million regtests' attributes resulting in a 40% accuracy.

Software Developer @ Mechanical Engineering Department - UMN **Aug 2020 – Feb 2021**

- Developed a full stack web application and internal tools for UMN's Air Filtration Research Department.
- Built REST API endpoints accessing configurable filter modeling visualizations using REST Django frameworks.
- Developed data analysis and visualization tools on historical and real-time data increasing efficiency by 50%.
- Reduced 73% of the latency of historical data visualization by caching reusable data from API calls in an implemented SQLite3 database.

Software Developer @ Impresso Labs [Startup] **Dec 2019 – Mar 2020**

- Developed Networking and Recruitment application on AppStore and Play Store with 5000+ user base.
- Worked on data exchange for user registration and verification system with PHP back-end via REST API.
- Integrated Flutter WebView into responsive web mobile application developed with HTML, CSS and JavaScript.

PROJECT

OCaml Interpreter for Pure Lisp

- Created an interpreter for Pure Lisp in OCaml to understand, evaluate Lisp expressions and to solve mathematical equations symbolically.

University Drone Package Delivery System

- Created a drone package delivery system with C++ based on our University Map, implementing different path algorithms and design patterns

Autonomous Self Driving Car Simulation

- Created a simulation integrated with OpenCV for image data processing, TFLearn to train a neural network model and Numpy for the bulk data collection of image frames