Saurav Laxmikant

UNIVERSITY OF WATERLOO · SEEKING SUMMER 2022 CO-OP OPPORTUNITIES

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Summary

Programming	Proven experience in developing business-critical applications. Architectured company wide API's and automation solutions
	Taught programming fundamentals as a teaching assistant. Developed interactive coding modules for students during pandemic
	Languages: Python, JavaScript, C++, Matlab, HTML, CSS, LaTeX. **Tech:** React, Node, Express, OAuth, Git, SQL, MongoDB, GraphQL
Adaptibility	Showcased rapid learning ability by applying developer tools while digitizing signode's operations and integrating its ERP system

Work Experience

Signode Canada
Markham, Canada

SOFTWARE ENGINEERING (CO-OP & PART-TIME) — *Jan 2021 - Present*

- Led the transition of signode's operation (e-commerce, shipping) to a digititized paperless platform. Achieving 25% reduction in yearly costs
- Boosted customer service productivity by 50% by speeding up order entries to $100k+ worth of consumables per week. Developed an EDI platform that analyses purchase order PDFs and consumes SAP ariba APIs to create entries compatible with our ERP system
- Developed complex python algorithms to parse data from PDFs through precise coordinate and pattern recognition. Optimizing parsing speed to <1s for 50+ page objects, while uploading data to MongoDB cloud and microsoft's OneDrive to create RESTful APIs
- Leveraged the ability of the algorithm to profit signode $300k worth of inventory backlogs by OCR parsing 8000+ invoices and scans from past year
- Queried database APIs using GraphQL and rendered OneDrive pdf's using OAUTH2.0, to develop a full-stack application using REACT and Node.js

University Of Waterloo - Engineering
Waterloo, Canada

ONLINE TEACHING ASSISTANT - COMPUTER PROGRAMMING — *May 2020 - Sep 2020*

- Held computer classes and coding practice sessions in C++ and MATLAB for first-year engineering students. Verified and marked code submissions
- Developed 100+ unit tests in C++ and python's pexpect library to automate verification of student code submissions on marmoset server
- Analyzed attendance and activeness data of 200+ students across the faculty. Actively provided detailed reports and trends to professors
- Prototyped and deployed interactive modules to enhance learning experience. Used REACT and Node.js to convert mock-ups to useable web presence

Tesla Motors Canada ULC
Toronto, Canada

MANUFACTURING PLANNING ASSISTANT — *Sep 2019 - Dec 2019*

- Developed and implemented a new planning strategy that reduced manufacturing planning time by 20% and paper usage by 8000 sheets/yr
- Utilized strong Python skills to create MRP Forecast and to filter out manufacturing plan history that reduced part repeatability by 40%
- Collaborated with cross-functional teams (design, quality, sales and production) and manufactured 700+ unique parts for Tesla's lithium-ion battery production line and liquid dispensing pneumatic pumps, focusing on manufacturability, product quality and cost reductions

Entrepreneurship Society
Waterloo, Canada

FRONT-END WEB DEVELOPER — *May 2019 - Sep 2019*

- Developed user-oriented visuals and UI features using ReactJs and RESTful routing. Integrated new interfaces with back-end systems like NodeJs
- Coordinating user research and user testing efforts, created assets such as icons and visuals for projects using Adobe Photoshop and Figma

Tircon Corp, Canada
Hamilton, Canada

DIMENSION CONTROL QUALITY ENGINEER — *Jan 2019 - May 2019*

- Performed dimensional validation using CMM and PC DMIS, conducted gauge R&R study and prepared control and containment plans
- Performed tolerance analysis to ensure success in high-volume production and manufacturing of the new Dodge-RAM step-pad

Projects

Yelp-Camp Web Application
Fall 2020

Tech Stack: JAVASCRIPT, HTML, BOOTSTRAP, NODEJS, EXPRESSJS, MONGODB, **Link to GitHub**

- Designed a website to review and locate campgrounds using html and JS. Implemented RESTful routing connecting to login and editing features
- Developed a back-end parser (NodeJs, ExpressJs) to interpret and manipulate data stored in MongoDB and to consume API from Google maps

Path-Finding Visualizer and Twitter Surveillance
Summer 2020

Tech Stack: PYTHON, PYGAME, TWITTER API, TWEEPY **Link to GitHub**

- Built python application for visualizing path-finding and maze-generation A* algorithm. Wrote a 10 pg research on optimization of path-finding
- Twitter bot that stores real time tweet data closely related to vaccine hesitancy, labeling every tweet as pos, neg using NLP and SVM classifier

Education

University Of Waterloo
Waterloo, Canada

B.S. IN MECHANICAL ENGINEERING WITH OPTION IN SOFTWARE/COMPUTING — *Sep 2018 - Present*

- Achieved Excellent academic standing through courses in Programming, Circuits and Instruments, Mechanics and Material design