

# Saurav Laxmikant

UNIVERSITY OF WATERLOO · SUMMER COOP 2022

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## Summary

- Programming** Proven experience in developing business-critical applications. Architected 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
- Adaptability** 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 - CONTINUOUS IMPROVEMENT

Jan. 2021 - May. 2021 | Sept. 2021 - Cont.

- Led the transition of signode's operation (e-commerce, shipping) to a digitized paperless platform. Achieving 25% reduction in yearly costs
- Boosted customer service productivity by 50% by speeding up order entries to \$100k+ worth 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 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+ scans and images from past year

### University Of Waterloo - Engineering

Waterloo, Canada

ONLINE TEACHING ASSISTANT - COMPUTER PROGRAMMING

May. 2020 - Sept. 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
- Prototyped and deployed websites to enhance student's learning experience. Used ReactJs and NodeJs to convert mock-ups to useable web presence
- Analyzed attendance and activeness data of 200+ students across the faculty. Actively provided detailed reports and trends to professors

### Tesla Motors Canada ULC

Toronto, Canada

MANUFACTURING PLANNING ASSISTANT

Sept. 2019 - Dec. 2019

- Developed and implemented a new planning strategy that reduced manufacturing planning time by 20% and paper usage by 8500 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 - Sept. 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, TWEETPY [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

Ontario · Canada

B.S. IN MECHANICAL ENGINEERING

Sept. 2018 - Present

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