

# Sean D'Souza

SOFTWARE ENGINEER | OTTAWA, ON

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## Education

**BASc in Software Engineering** — University of Ottawa (GPA: 9.6/10)

Ottawa, Ontario Sep. 2019 - Dec. 2023

• *Relevant Coursework:* Computing (Python, Java), Software Engineering, Digital Systems, Technical Report Writing, Calculus, Discrete Math

## Work Experience

**Frontend Developer, Intern** — Ericsson

Ottawa, Ontario (remote) May. 2020 - Aug. 2020 (4 months)

- Delivered a Proof of Concept (PoC) and release of a new UI (SAP UI) that configures the telecom network monitoring application at runtime
- Wrote a design doc detailing all the shareable components in the SAP UI that increased testability, readability and consistency
- Acted as scrum master by creating epics and stories for the productization of the SAP UI pertaining to RBAC, SSO, DevOps and technical debt
- Established a base for integration and end to end tests with WebDriverIO leading to a reduction in manual testing by 75%
- Integrated CI with GitLab Pipelines for the SAP UI and backend improving code quality and lead time
- Leveraged knowledge in: JavaScript, ClojureScript, Web Components, re-frame, Selenium WebDriverIO, Docker, Kubernetes, Helm, GitLab

**Full Stack Developer** — CC&SD Co.

Kingston, Ontario (remote) Nov. 2019 - April 2020 (6 months)

- Architected, designed and developed a full stack e-commerce platform from the ground up (MERN Stack)
- Implemented PayPal Express Checkout, inventory management and shopping cart using an Express REST API
- Adapted client's requirements into a simple user/UX flow and minimalistic design by creating UI mockups in Figma and Adobe XD
- Deployed Kubernetes pods consisting of MongoDB, NGINX (frontend) and Node.js (backend) Docker containers on DigitalOcean
- Leveraged knowledge in: JavaScript (ES10), HTML5, CSS3, React, Redux, Node.js + Express, MongoDB, NGINX, Docker, Kubernetes

**Junior Software Developer, Intern** — CENX Inc.

Ottawa, Ontario Jul. 2018 - Aug. 2018 (2 months)

- Extended a CLI program written in Python that summarizes gigabytes of FunkLoad test data from XML logs by improving runtime by over 200% using the ElementTree XML API
- Created a graphing program in Python and AWK that visualizes daily system logs (SAR) using NumPy and Pandas
- Refactored, fixed and restored an HTTP and WebSockets integration test that proved the existence of unresponsive endpoints in the product
- Leveraged knowledge in: Python, AWK, NumPy, Pandas, HTTP, WebSockets, XML, Apache Solr, Linux, Docker (+ Compose), Agile, Jira

## Projects

**vscout** — TypeScript, React Native, Redux, CouchDB

Feb. 2020 - Apr. 2020

- Developed scouting software for the VEX Robotics Competition (VRC) that allows scouts to collect and analyze quantitative info about robots
- Composed design documents detailing architecture, design decisions, components, screens and actions
- Assigned stories to other developers, while verifying design and setting feature decisions

**CU Hacking** — JavaScript, Python, HTML, CSS, React, Redux, Jupyter Notebook, TensorFlow, Twitter API

Jan. 2020

- Created the UI for a web app that scrapes Twitter to find actionable and relevant tweets that customer support can respond to

**Hack the North** — Python, JavaScript, HTML, CSS, React, Redux, Flask, Google Vision API, MathPix API

Sep. 2019

- Produced the UI for BoardTeX, an app that uses OCR to convert images of math and CS notes into LaTeX

**Hack the 6ix** — Python, JavaScript, HTML, CSS, React, Redux, Flask, AWS S3, AWS Sagemaker

Aug. 2019

- Created the REST API for an application that speeds up the auto insurance claim process by identifying if a collision has occurred when given an image, and estimating the refund of a client based on their account details

**VEX Robotics Competition (VRC) Robot** — C++, Python, RTOS

Nov. 2018 - Feb. 2019

- Engineered an autonomous program using motion profiling, PID feedback control and driver control in C++, Python and the PROS library
- Won Excellence, Innovate, and Service Awards; and Tournament Champions at various regional competitions

## Skills

- *Programming Languages:* Python, JavaScript, TypeScript, HTML, CSS, Clojure, C++, Java
- *Technologies:* React/Redux, React Native, Web Components, WebDriverIO, Node (Express), Flask, MongoDB, Docker, Kubernetes, Git, Unix

## Extracurriculars

- Substitute Teaching Assistant (TA) for Trilogy Education/2U at Carleton University for Full Stack Flex Bootcamp (June 2020)
- Mentor for SETHacks; participant at 5 hackathons including Hack the North
- Mentor and software advisor for high school VEX robotics organization consisting of 7 teams
- Architecting a Level 5 autonomous race car (WIP)