

# Sean D'Souza

SOFTWARE ENGINEER | OTTAWA, ON

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## Education

**BAsc in Software Engineering** --- University of Ottawa (9.05/10) Ottawa, Ontario Sep 2019 - Dec 2023 (52 months)

- Python, Java, Software Engineering, Computer Architecture, Data Structure and Algorithms, Operating Systems, Uls, Databases

## Skills

- *Programming Languages:* Python, JavaScript, TypeScript, HTML, CSS, C++, Java, Clojure, Go, Rust, Solidity
- *Technologies:* React, Redux, Web Components, WebDriverIO, Node.js + Express, Flask, MongoDB, Docker, Kubernetes, Android, Linux

## Work Experience

**Software Engineer, Co-Op** --- Rippling San Francisco, California May 2023 - Aug 2023 (4 months)

- Transitioned documents in the Partner Platform into a GDPR-compliant, multi-region platform
- Leveraged knowledge in: Python, TypeScript, JavaScript, Rust, Django, MongoDB, React, Temporal

**Full Stack Developer** --- reNFT Remote Sep 2022 - Apr 2023 (8 months)

- Created a new version of the rentals platform that allows for fast iteration on the underlying rentals logic
- Leveraged knowledge in: TypeScript, JavaScript, Solidity, GraphQL, React, Ethereum, NFTs

**Software Engineer, Co-Op** --- Rippling San Francisco, California May 2022 - Sep 2022 (5 months)

- Helped launch EOR and direct hire for Rippling Global in India and Canada
- Upgraded frontend codebases from Node 12 to 18 improving hot reload time by 3x and reducing CI build times by >100s

**Full Stack Developer, Co-Op+Intern** --- reNFT Remote Sep 2021 - Apr 2022 (8 months)

- Created Discord bot serving over 13000 users that adds and removes roles (RBAC) based on ownership of a token or rentership of an NFT
- Developed program for collateral-free renting of NFTs on the Solana blockchain using Rust
- Leveraged knowledge in: Python, TypeScript, JavaScript, Rust, Solidity, GraphQL, React, GraphQL, Ethereum, Solana, Polygon, NFTs (ERC-721)

**DevOps + Full Stack Developer, Co-Op+Intern** --- Ericsson (Cloud RAN) Ottawa, Ontario (remote) Jan 2021 - Sep 2021 (9 months)

- Created a time-series anomaly detection system for application and infrastructure metrics with 4 other team members
- Evaluated various full stack observability and root cause analysis solutions for pre-canary characteristic testing environment
- Leveraged knowledge in: Python, Go, Java, JavaScript, C, Kubernetes, Helm, Docker, Jenkins, Prometheus, InfluxDB, MongoDB, GitLab Pipelines

**Frontend Developer, Co-Op** --- Ericsson (CENX) Ottawa, Ontario (remote) May 2020 - Aug 2020 (4 months)

- Delivered a Proof of Concept (PoC) and release of a new UI that configures the telecom network monitoring application at runtime as a team of 5
- Made presentations about Micro Frontends, and PM+FM collectors from ONAP, Prometheus, OpenStack, telegraf, SNMP
- Leveraged knowledge in: JavaScript, Python, ClojureScript, Web Components, WebDriverIO, Locust, Docker, Kubernetes, GitLab Pipelines

**Junior Software Developer, Co-Op** --- CENX 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%
- Created a graphing program in Python and AWK that visualizes daily system logs (SAR) using NumPy and Pandas used when assessing performance
- Refactored, fixed and restored an HTTP and WebSockets integration test that proved the existence of unresponsive endpoints in the product

## Projects

**Decentralized Mahjong** --- React, Ceramic (IDX, 3ID), ThreadDB, WebRTC, IPFS Aug 2021 - Present (-6 months)

- Creating a Mahjong platform that runs decentralized (IDX identity management, P2P player communication, IPFS game logs)

**opentuber** --- Python, TypeScript, React, Three.js, GLTF + VRM, PyTorch, dlib, Caffe Dec 2020 - May 2021 (6 months)

- Leading a team of 6 to create software that controls a virtual character from your own movements with just camera data

**VEX Robot (Team 2381C)** --- C++, Python, RTOS Nov 2018 - Feb 2019 (4 months)

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

## Leadership and Activities

- Mentor at uOttHack and SETHacks; participant at 6 hackathons including HackFS, Hack the North and Hack the 6ix