

Jason Sun's Resume

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Profile

A generalist with interest and experience in blockchain, robotics, and fullstack web. Software architect having in a wide range of software stacks, leading cross team efforts to design and integrate multiple tech stacks to form new features.

- Experience in Real-Time Systems, Full-Stack Web, Full-Stack Robotics, Blockchain, and Fintech.
- Proven ability to lead projects, manage project teams, create design documents, and build organizational-wide processes.
- Mentoring and managing engineers and interns, as well as interviewing and assessing candidates.
- Extensive software stack knowledge and experience in architecting, leading design and integration, and creating feature design proposals.
- Demonstrated success in the product development lifecycle, from conception to prototype to end of life support and maintenance at both AutoX and Amazon, respectively.
- Adaptability to both a fast-paced startup culture and a large corporate environment.
- Over 15 years of development experience, including the use of Slackware Linux and Arch Linux.
- Currently a cryptocurrency stake pool operator and developer.
- Self-driven and motivated with a diverse set of hobbies (see [blog.sunapi386.ca]).

Education

- *University of Waterloo* Bachelor of Computer Science, 2015. Exchange at *EPFL (Swiss Federal Institute of Technology at Lausanne)*.

Work Experience

- Co-Founder *Roamverse* October 2021 — present

Roamverse is an umbrella company that deals with blockchain, fintech and more. We have created a collection of NFT art, a stakepool on the Cardano blockchain, and provide fully automated algorithmic trading strategies utilizing data science and machine learning to analyze data faster than the general public. We also perform technical analysis on financial instruments such as options, earnings reports, and volatility analysis. Our technologies include bare metal hardware and cloud deployments, blockchain infrastructures, database migrations and administration with SQLite/Postgres, machine learning in Tensorflow, and fullstack React.

- Software Engineer *Amazon Lab 126* June 2019 — January 2022 Sunnyvale, California

Develop the Amazon Astro, a home robot that enables Alexa to take a physical form and have mobility. Also developed platform infrastructure on a real time mapping pipeline and worked on the product for over two years, from prototype to production. Used ROS, C++, Python, Java, and full stack web technologies. Mentored engineers and interns, creating new architectures and driving cross functional team features.

- Autonomous Systems Engineer *AutoX Technologies Inc.* in August 2017 – May 2019 San Jose, California

HD mapping infrastructure working with point clouds for large scale map building used in localization, with Hadoop.

Lead efforts to build API backend for location-based delivery service AutoX apps. GraphQL, Node.js, React. General architect role, lead team efforts to design and integrate tech stacks for product feature development using C++, Python, Javascript. Full-stack autonomous system integration, low/high-speed delivery vehicles.

Experience developing off hardware sensors for SLAM, LOAM using lidars, cameras, radars, ultrasonics.

Delivered features: remote control (networked video streaming and throttle/steering control), hybrid human-and-AI decision making for unhandled driving scenarios (in patent process), design and implement vehicle-to-cloud APIs (LTE networked), embedded systems with touchscreen UI.

Cluster computing automation using Docker, Kubernetes, ROS (Protobuf). Point cloud HD mapping, localization, vehicle remote vehicle control, hybrid human-vehicle interactions, cloud to vehicle API, big data.

- Software Engineer *Apple Inc.* in November 2015 — January 2017 Cupertino, California

Improved existing product reliability tools, conceived and built full-stack website (Rails API & Ember.js & nginx & MySQL) for managing iOS devices. Created client-sided task runners for delegating test-work, where work jobs were queued from the website. Also worked on internal iOS and macOS apps (Swift & Objective-C).

- Undergrad Research Assistant at University of Waterloo in May 2015 — September 2015 Waterloo, Ontario

Worked with my AI professor and a 6 person team to develop a data tool for analysis of chat logs, and built a search engine prototype (using TF-IDF in Apache Lucene). Prototyped a search engine for customer support chat dialogues with Apache Lucene using TF-IDF indexing for feature recognition and searching.

- Software Engineer Intern *Shutterfly Inc.* in July 2014 — August 2014 Redwood City, California

Design and implemented a distributed REST API service, in Java/Scala based upon the Apache Cassandra database. The API was designed by myself, with guidance from full-time employee members of the web infrastructure platform team, to be used by other Shutterfly services. Create additional network load tests for our distributed image hosting service.

- Software Developer at *Encircle Inc.* in May 2014 — June 2014 Kitchener, Ontario

Worked on the website (CoffeeScript & Python Tornado server) and Android app, at a 3 engineer startup in the *Velocity Garage*, which is a University of Waterloo startup incubator.

- Software Tools Developer Intern at RIM (BlackBerry) in September 2013 — December 2013 Ottawa, Ontario

Built internally used features to GitLab (Ruby on Rails) and helped with database migration from Github to Gitlab. Developed a testing framework for integration and regression testing website user interfaces using the Selenium Webdriver.

- Physics Teaching Assistant at *Wilfrid Laurier University* in September 2011 — April 2012 Waterloo, Ontario

Developed a spectrometer reading program in Python, using the pySerial library, to automate the reading of lab samples, and generate a spreadsheet file. Supports multiple spectrometer readings in parallel.