

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, cryptocurrency blockchain.
- Experience in leading projects, project management, leading cross functional team efforts, design docs, building org-wide processes.
- Mentor and manage engineers/interns, and interview candidates.
- Wide software stack expertise, architect function, lead design & integration for multiple tech stacks.
- Create feature designs proposals, break down and delegate components to cross function teams.
- Complete product development lifecycle experience. From conception, to prototype, to end of life support maintenance; at AutoX Amazon and Apple, respectively.
- Experience in fast paced startup culture and large corporation.
- Developer since 2004 using Slackware Linux and Arch Linux.
- Current cryptocurrency stake pool operator and developer.
- Driven and self-motivated personality with many hobbies (see blog at *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* Project October 2021 — present

Roamverse develops projects on Cardano blockchain. This includes being a network operator running a proof-of-stake pool, and created a NFT art collection. My role is anything technical, I work with a co-founder who runs the business and operations.

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

Worked on developing Amazon Astro. It's a home robot which it enables Alexa to take a physical form and have mobility. Develop platform infrastructure on real time mapping pipeline. Worked on this product for over 2 years, from prototype to production. Use ROS, C++, Python Java, full stack web. Mentored junior engineers and interns. Create new architecture and drive 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 understanding of SLAM, LOAM, 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.