

Ryan Sundberg, Software Engineer (Full Stack)

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Introduction:

With a Software Engineering degree from Cal Poly SLO, I was taught to *Learn by Doing*. Over years of continuously experimenting with code, I've learned that *Worse is Better*, to keep it simple, and stick to the fundamentals. In leadership, I manage by listening, and lead by example and humility, so that as a team leader I can best serve the team.

I am an experienced full stack engineer, who can deliver embedded code and drivers in C or C++, build AI and ML models and datasets in Python, develop API services in Clojure, C#, Java, Go, or most other languages, and support the infrastructure for big data and analytics including the latest OLAP and ETL technology.

Work Experience:

Principal Software Engineer, **Jupiter Cloud**

2024-Now

- Brought the jupitercloud.com app store to market in March 2024, using Clojure, Python, Typescript, Golang
- Shipped Jupiter Cloud *SubscribeD*, a Golang SDK for developing SaaS integrations for Jupiter Cloud
- Launched peacockdata.dev which is a Python based SaaS tool to generating custom datasets for AI
- Released Apollo DNS jupitercloud.com/dns to production, a globally distributed DNS service using C++
- Merged multiple Golang pull requests upstream with Hashicorp, including Nomad & Terraform products.

Senior Staff Software Engineer, **Patch Enterprises**

2022-2023

- Improved team efficiency by building developer tooling, & reduced CI & CD time by 80% in our pipelines
- Lead engineer for backend systems; primarily developed in Clojure and Python using technologies including Iceberg, Snowflake, TiDB (MySQL compatible OLAP), and Azure cloud services for ETL pipelines.
- Reduced median latency on our core GraphQL API by 80% using OpenTelemetry to optimize execution.
- Developed internal tooling using Golang with code generation to facilitate service administration.

Senior Software Engineer, **Google Pay**

2021-2022

- As a senior engineer on the GPay Merchant and Offer Discovery team, I improved CTR on the home screen by 7% by building more intelligent signals for the ML ranking engine.
- Used Python and Java to develop data models, and C++ to execute them in the application server.

Senior Software Engineer, **Chronicle Inc.**

2019-2020

- Chronicle delivers enterprise blockchain applications supporting the Pharmaceutical Industry and their supply chain.
- Developed with Java, Scala, TypeScript, GraphQL RabbitMQ, and Kubernetes technology to integrate global business data.

Co-Founder, **Creatist Studios Inc.**

2016 – 2017

- Created “*Chowdr Social Eating*” an iOS/Android/Web app, an “Instagram for Foodies”
- Primarily developed in Clojure, Clojurescript, and Python, with supporting code in many other languages, on a PostgreSQL and Riak, and Kafka architecture.

Principal Software Engineer, **Staples Inc.**

2015 – 2016

- Developed systems for Staples.com to support algorithmic customer experience personalization, A/B testing to increase revenue, and related financial reports.
- Work with Clojure, Kafka, Redis, Redshift, Spark, Jenkins & more on AWS.

Software Engineer, **Lam Research Corp.**

2013 – 2015

- Developed systems software in Smalltalk to operate chemical-vapor-deposition and etch process modules.
- Resolved dozens of critical issues and deadlocks in new product lines, significantly contributing to system stability.

Software Engineer, **Brooks Automation, Inc.**

2012 – 2013

- Developed software on a team using C# and Windows CE to operate the Brooks Automation WaferEngine® and EFEM products.
- Successfully developed motor control I/O board software to a written spec, using the Nuttx RTOS and C++ on an STM32 microcontroller, and published contributions back to the NuttX project.

Software Developer, **I-Tul Design & Software, Inc.**

2008 – 2012

- Full stack developer responsible for designing, implementing, and maintaining a diverse range of software, including banking, legal, real estate, multimedia, educational, and commercial applications running primarily on PHP.

Education:

B.S. Software Engineering, **Cal Poly San Luis Obispo**

2007 – 2012

- Electives including graph theory, AI, theory of computing, and software quality control.

Senior Projects:

2012

- **Go-Cab.com** HTML5 app to order a cab in an instant using your smartphone.
- **Teller** A program written in C, capable of recognizing simple voice commands to control a television with infrared signals.

Technical Experience:

Languages and :

- ARM Assembly, Bash, C, C++, C#, Clojure, Clojurescript, Guile, Go, Java, Javascript, Objective C, PHP, Protobuf, Python, Regular expressions, Scala, Smalltalk, SQL, Solidity, Swift, TypeScript
- W3C/WHATWG standards; HTML and CSS
- Hardware protocols including SPI, UART, I2C, RS232/485, Modbus, PWM, GPIO, DMA, Ethernet
- Networking protocols (HTTP, email, tls, tcp/ip, udp, bgp, sockets, etc; bitcoin, ethereum, gRPC)

Familiar Tools:

- GNU Guix, NixOS nixpkgs
- Git, SVN, Gerrit, Graphite
- Docker, Kubernetes, Nomad, Terraform
- AWS, GCP, Azure, QEMU, bare metal
- Apache Calcite, Iceberg, Hadoop, Spark, Beam
- Etc, Zookeeper, Kafka, Solr, RabbitMQ, Pulsar
- Cassandra, DynamoDB, Riak, PostgreSQL, MySQL, MSSQL, ClickHouse, TiDB, OLAP/OLTP
- Vim, Visual Studio, Xcode, Android Studio, Eclipse
- Redis, Memcached, LevelDB, RocksDB
- React, React native, Cordova
- Unix, POSIX, Linux, BSD, Illumos, NuttX OS
- Nginx, Apache, Lighttpd, http-kit, Jetty servers
- Google closure, Metro, Webpack, Next.js
- Jenkins, GoCD, CircleCI, Github Actions
- Oscilloscope, Multimeter, Spectrum Analyzer usage
- KiCAD, PCB fabrication, soldering
- gcc, gdb, make, autoconf, cmake, bazel, protoc

Open Source:

Accepted Source Code Contributions:

<ul style="list-style-type: none"> • Armbian OS • Buddy (Clojure cryptography library) • dtype-next (high performance JVM datatypes) • Facebook Metro compiler • GNU Guix (core patches and packages) • Hashicorp Nomad • Jenkins • k0s Kubernetes Distribution • Lacinia GraphQL server • Matomo Analytics • NetBSD 	<ul style="list-style-type: none"> • Nextcloud • Nightshell (Clojure debugger) • NuttX RTOS • Onyx (Clojure data processing platform) • Phoneygap • Polyolith (Clojure build system) • Protojure (Clojure gRPC code generator) • React Native • Rxjs library • SQLite-JDBC driver • Xchange (trading API)
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