

Experience

Amazon Web Services

SDE L5 (Rust)

July 2021 - November 2023

- Launched new product, AWS Payment Cryptography. Low-latency (under 10ms), high-throughput (over 100K TPS), high-correctness system.
- Designed distributed state-machine solution for fleet orchestration, which reduced overall complexity and provided mechanisms for failure tolerance and auto-recovery.
- Patent-pending distributed orchestration algorithm for HSM configuration based on Lamport Timestamps.
- Developed distributed load testing solution for evaluating performance, generating over 100K TPS across multiple machines.
- Ran Rust trainings and workshops for the AWS Cryptography Org. Grew organically from Rust trainings provided for my immediate team.

Commure

Software Engineer; Foundation Team (Rust)

March 2020 - July 2021

- Member of 8 person foundation team developing and maintaining FHIR database platform.
- Tech lead for an AI-insight solution. Pipeline to run ECG data through a CNN developed by a partner company and display the results overlaid on ECG display. Work landed a contract with a large hospital.
- Tech lead for an ETL solution for ingesting and transforming data into FHIR for a large medical partner.
- Designed and implemented authentication solution for healthcare provider which solved their unique use-case via Proxy-IDP to bridge the gap between their authentication and OIDC.

Wanderu

Software Engineer (Python/JS)

April 2019 - March 2020

Junior Software Engineer (Python/JS)

Sept 2018 - April 2019

- Designed and implemented a translation CMS for supporting custom content on over 1.9M pages across 7 locales. This helped boost SEO rankings to 40-50% year over year due to significantly more custom content.
- Designed and implemented a graph algorithm for optimizing the PageRank of the internal linking of city-to-city travel pages. Optimized graph has over 200K nodes and 5M edges.
- Implemented an RFC system which was made a key part of the software design process.

Amazon Robotics

Software Engineering Intern (C++)

Summer 2017

Onshape

Software Engineering Intern (C++)

Summer 2016

Audience Inc., Multisensory Algorithm Intern

Software Consultant (C)

Fall 2015 - Spring 2016

Multisensory Algorithms Intern (C)

Summer 2015

Education

Olin College of Engineering

Bachelor of Science in Electrical and Computer Engineering, 3.81 GPA

Firmware Development Lead (C) for Olin Electric Motorsports (fSAE Electric Team)

May 2018

Projects

(more at github.com/byronwasti)

Database Migration Manager CLI (Movine)

A minimalist database migration manager developed in Rust.

#Hashtag Gloves - Tweeting Smart Gloves

Featured nationally on news outlets (Buzzfeed and Gizmodo) for hackathon project on tweeting gloves.

Skills

Fluent in Rust, Python and Git. Competent in C, C++ and Javascript/Typescript. Familiar with Haskell and Elm.

Distributed systems, backend development, systems development, full-stack development and firmware development.