Royce Schultz

Software Engineer

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GitHub, LinkedIn: royceschultz

Education

Stanford University

Professional Engineering Program
Artificial Intelligence & Machine Learning
Completion expected November 2025

New York University

M.S. Computer Science, Cum Laude
Course Assistant, Calculus (2 Sem.)
Graduated December 2022, 3.8 GPA

University of Colorado

B.S. Computer Science, Minor Math
Course Assistant, Calculus (4 Sem.)
Graduated May 2021, 3.5 GPA

Skills

Developer Tools: Git, Linux, Docker, VSCode, AWS, Terraform, Rancher, Kubernetes, Github Actions, Jenkins, Grafana (Service Monitoring)

Languages: Python, JavaScript, Typescript, C++, Rust, SQL, Bash, HTML, CSS

Web Technologies: React, Vue, Svelte, Vite, Node, ThreeJS, WebGL, MapBoxGL, Lodash, Flask, Django, gRPC, WASM

Data Science: Pytorch, Tensorflow, Numpy, Pandas, Scikit-learn, OpenCV

Testing Tools: Pytest, Behave, Vitest, Jest

Databases: Postgres, MongoDB, Redis, Elasticsearch, InfluxDB, TimescaleDB

Industry Knowledge: Geospatial Data, Time Series Data, Scientific Calibration, Digital Signal Processing, AI Training, GPU Acceleration, Computer Vision, Robotics, Autonomous Vehicles, HPC, Algorithms, Computational Geometry, Distributed Systems, Parallel Computing

Relevant Experience

Maxar, Satellite Imagery

Software Engineer, September 2023 - Present

Developing mission critical software solutions to support smooth operation of industry leading imaging satellites.

Creating interfaces, library tools, and real-time automated verification systems for time series telemetry data.

Developing calibration tools used to achieve 5 meter geolocation accuracy of satellite imagery taken from altitudes up to 770 km.

Engineered fault tolerant, highly available systems for critical mission operations within secure environments handling sensitive and classified information.

Collaborating with cross-functional teams to address complex engineering challenges.

TuSimple, Autonomous Trucking

Software Engineer, May 2022 - December 2022

Contributed to software projects that support the development and operation of autonomous vehicles.

Created highly interactive 3D data visualization tools to aid downstream teams in research and validation.

Supported the successful release of a new web portal central to manage geographic markers of hazard zones.

Designed and implemented distributed data pipelines, applying computational geometry algorithms to process high-resolution map data totaling over 20 terabytes.

University Finance Lab

Research Assistant, September 2020 - May 2021

Researched natural language processing algorithms used to analyze TV news transcripts on the order of 10 gigabytes.

Applied computer vision techniques to extract optical textual data from 60,000 scanned financial documents.

Developed multi-processing algorithms to transform data in parallel on a supercomputer cluster provided by the University.

Amazon

Software Engineering Intern, May 2020 - August 2020

Supported infrastructure used to gather IOT device metrics that provide quantitative insights for business intelligence.

Developed algorithms to identify erroneous metrics in a massive data warehouse to ensure quality data for downstream research initiatives.