

Shaurya Raswan

949-682-6666 ◇ La Jolla, CA ◇ shauryaraswan@gmail.com ◇ [LinkedIn](#) ◇ [GitHub](#) ◇ [Website \(Angular SSR\)](#)

BS/MS in Computer Science, University of California San Diego

Sep 2022 - Jun 2026

Focus: Programming Languages and Compilers

GPA: BS 3.83 - MS 4.00

EXPERIENCE

Software Engineer

Whatnot

Starting Aug 2026

Los Angeles, CA

Teaching Assistant: Compilers, C Programming

UC San Diego CSE Department

Sep 2025 - March 2026

La Jolla, CA

- Taught students C programming and full compiler pipeline within Rust: functional patterns, lexing/parsing, AST, type checking, IR, function closures, liveness for register allocation, AOT, REPL with JIT, heap allocation.
- Co-authoring CS education paper on pedagogical approaches for teaching JIT compilation with Prof. Joe Politz.

Software Engineer Intern

Societe Generale Group

Jun 2025 - Aug 2025

New York, NY

- Built an async, multithreaded pipeline to cross-check manually extracted Bloomberg Terminal data against internal APIs; extended low-latency TCP feed handler to automate capturing those missing fields.
- Shipped full-stack Angular + SpringBoot features with JPA repository patterns for PostgreSQL management, including trade booking over WebSocket and release notes with XSS sanitization.

Software Engineer Intern

SMBC Group

Jun 2024 - Aug 2024

New York, NY

- Architected the first external data ETL and ML repositories on Azure Databricks. Developed scheduled web scraping and ingestion pipelines to unstructured + structured Parquet datasets using PySpark RDD parallelism.
- Applied vector embedding NLP models with named entity recognition (Gensim with NLTK, MPNet, FinBERT) for parallel entity resolution and SEC + FED sentiment analysis.

PROJECTS

Snek. Linear algebra compiler with abstract syntax tree supporting register allocation, type inference, garbage collection, graph pruning, JIT optimizations, and simple quantization. Built with Rust and LLVM for x86 NASM.

BurnMark. First Rust fuzzing harness for automatic differentiation in deep learning libraries that target AMD ROCm HIP, Cranelift WebAssembly, and LLVM backends. Fixed 16 bugs in popular frameworks like Burn.

F1 Convex Trajectory Optimization. A non-convex vehicle controls model and KKT formulation to optimize lap curvature. Used CVXPY, Clarabel, and real-world telemetry to simulate racing lines that outperformed F1 records.

Toopy. OpenCL CNN inference pipeline using explicit im2col for convolution lowering and CLBlast batched GEMM.

IsaBunny. 9-bit synthesized SystemVerilog CPU with custom ISA and Python assembler. Made for floating and fixed point type casting, type coercion, and addition. Supports pipelining, branching, and fully associative cache.

AWARDS

CruzHacks 2024. 1st place. Computer vision ASL translator app (React Native, pose estimation + LSTM).

Bonnie Reiss Fellowship 2024. \$4,000 scholarship. Evaluated UCSD grid decarbonization of on- vs off-site solar.

OC Beckman Award. 1st place, \$16,000 scholarship. Built custom LEGO spectrophotometer for detecting lake algae blooms. Presented findings at 2022 Caltech Beckman Symposium.

Skills	Python, Rust, C++, Java, TypeScript, RxJS, Haskell, SystemVerilog, GCC, LLVM, OpenCL, Spark, Flask, Postgres, Gradle, Maven, PyTorch, Tensorflow, OpenCV, Pandas, JVM, Docker, MongoDB, AWS
Classes	Safe Embedded OS, Architecture, Parallel Computation, Statistical NLP, Cryptography, Compilers
Fun	Tabla, Trumpet (Mariachi), Skateboarding, Biking, Tarot, Reading, Creative Writing