

Ashwin Bhat

305-878-1762 • ashwin@shwin.tech • shwin.tech • github.com/The-Shwin • linkedin.com/in/shwin

EXPERIENCE

Amazon Project Kuiper Software Engineer

March 2024 – Present
Redmond, WA

Python, TypeScript, AWS, SQL

- Developed monitoring services for the ground systems fleet of Kuiper's satellite internet constellation with failure detection during contacts, general site availability, automatic ticketing, and visualization of contact metrics.
- Designed automated detection for operational issues in the monitoring system achieving 100% uptime during first launch.
- Led stress testing to validate scaling/operational readiness and ensure a 99.99% uptime and performance rate for future general availability.
- Created self-service analysis/dashboards tooling for non-technical users by developing an end-to-end data pipeline for querying and visualizing programmatically analyzed/aggregated satellite contact and site availability telemetry.
- Designed and implemented orchestration service for fine calibration via backend simulation of antenna control units across many sites.

Twitch Interactive (Amazon) Software Engineer

June 2022 – March 2024
San Francisco, CA

Golang, TypeScript, React, AWS, Redis, RPC, GraphQL

- Built creator incentive promotions for the Ads Incentive Program at Twitch, increasing ad adoption by creators by 2x.
- Developed various ad running growth/supply products leading to a 28.57% YoY increase in ad densities.
- Modernized Twitch's Creator Rewards System including performance upgrades, code rewrite, and migration of 500 million calls per day service with zero downtime and 50% cost reduction.
- Improved the team's observability tooling, leading to a reduction in systematic errors in reporting metrics and a 65% decrease in false alarms while empowering 99.99% service availability.
- Led the measurement and experimentation designs for the Ad Insights product.

Medly Pharmacy Software Engineer

October 2020 – June 2022
New York, NY

TypeScript, React/Redux, Node, AWS, Postgres, GraphQL

- Led full-stack planning and development of B2C products for patient experience and internal web apps for full prescription lifecycle at a growing pharmacy chain.
- Implemented event-based architecture for processing incoming prescriptions and routing them to be serviced via internal tooling or direct to customer text messages leading to 5x throughput.

Galen Robotics Software/Electrical Engineer

May 2018 – May 2021
Baltimore, MD

C++, Matlab, Electronics, PCB Design

- Developed motion trajectory constraints, sensor-based error checks, and logging features for a surgical robot.
- Formulated requirements and designed, built, and tested the electrical workings of two prototypes of the surgical robot which later received FDA approval with De Novo classification.
- Supervised a team of electrical engineering interns. Mentored interns through iterative design and review process.
- Tuned 5-DOF robot for smooth motor control.

SKILLS

Languages: Python, TypeScript, Go, C++, C, MATLAB, SQL, Java, JavaScript

Libraries: GraphQL, Redis, OpenCV, scikit-learn, PyTorch, NumPy, React, Skyfield, ROS, Gazebo, JAX, CVXPY

Tools: AWS (ElastiCache, SNS, DDB, ECS, CloudFormation, CloudWatch, Lambda), Git, Linux, Postgres, Grafana

Other: Research, Leadership, Mentoring, System Design, Founding Engineer

EDUCATION

Johns Hopkins University B.S. in Computer Engineering

May 2018
Baltimore, MD

Minors: Robotics, Applied Math & Statistics, Computer Science

RESEARCH & PROJECTS

JHU Autonomous Systems Controls & Optimization Lab

Undergraduate Research Assistant

- Researched and programmed motion-based teleoperation for drone-mounted robotic arm (Razer Hydra, C++, ROS).

Electronic Tracking for Earth Movers

Johns Hopkins University

- Created proof-of-concept tracking program with Bluetooth hardware to show relative position of a construction worker.

Florida International University REU (NSF/DoD)

Undergraduate Research Assistant

- Applied statistical ML techniques for augmented terrain-based navigation by robots (developed in Python and MATLAB).