

DHRUV SETHI

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EXPERIENCE

Lockheed Martin | Software Engineer II

Aug 2023 – Present

Los Angeles, CA

Enterprise Operations | Virtual Program Assistant (VPA)

Sept 2025 – Present

- Leading development of Portfolio Performance, a full-stack feature that applies AI forecasting to aggregated schedule, cost, and financial data to predict on-time, on-budget completion and surface at-risk task end dates across 1,500+ programs.
- Designed REST APIs and dimensional data models that turned raw contract data into analytics-ready schemas, serving SPI/BEI/CPLI metrics to real-time dashboards at sub-2-second latency across all business units.
- Designed and enforced role-based access control across the stack, implementing backend permission logic, secured API endpoints, and role-aware UI to protect sensitive program data across 15 user roles.
- Consolidated the SPI/CPI data model from ETL staging data, eliminating 10+ redundant API calls per page for faster dashboard rendering.

Skunk Works (Aeronautics) | Ground Control Systems

Aug 2023 – Sept 2025

- Partnered directly with pilots and operators to translate ambiguous mission requirements into production software across 10+ vehicle subsystems (Python, C++, Lua), owning features from design through live operator validation.
- Re-architected the Ground Vehicle Management System backend around an event-driven design, decoupling subsystems and refactoring legacy code to cut processing runtime by 37%.
- Authored 1,500+ Lua and C++ unit tests on virtualized RHEL/VMware runners, lifting branch coverage to 98% and hardening mission-critical systems against regressions.
- Drove the operator feedback loop by demoing integrated ground-and-air capabilities and folding real-time operator input into the next iteration, catching usability gaps before deployment.
- Built a CI/CD pipeline (GitLab, Artifactory, Python) that automated build, test, and deployment, cutting release time from 2 hours to 30 minutes (a 75% reduction) and enabling more frequent, lower-risk releases.
- Reverse-engineered an undocumented Python/C++ audio subsystem by mapping its data structures and prototyping integrations, adding operator alerting and delivering the MVP 2 weeks ahead of schedule.

Aero AI | Autonomous AI-Enabled Inspector (ML Stretch Assignment)

Sept 2025 – Dec 2025

- Trained a single-stage object-detection model (computer vision) to localize aircraft control points in high-resolution imagery, cutting manual inspection effort by 20%.
- Built the end-to-end Python ML pipeline spanning labeled-dataset generation, datalake ingestion, training, and inference/evaluation, feeding a 3D reconstruction workflow that achieved 0.05–0.075 m localization accuracy.

PepsiCo | Software Engineer Intern

May 2022 – Aug 2022

Enterprise App Development | 1st Place PepsiCo Intern Challenge

Dallas, TX

- Built React/Node.js API tooling that optimized data queries, cutting response time by up to 70%.
- Built and shipped an MVP meeting-room reservation app (Python/Flask) for 150+ users, winning 1st place in the PepsiCo Intern Challenge.

Sandia National Laboratories | Software Engineer Intern

May 2021 – Apr 2022

Knowledge Systems (FileNet)

Remote

- Built a full-stack app on IBM FileNet APIs that automated document parsing, improving data-retrieval speed by 55%.
- Provisioned AWS infrastructure (EC2, S3) as code with Terraform and Python, supporting scalable, repeatable document-processing workflows.

PROJECTS

Soccer Starz AI Analytics | AI Developer

- Took the project 0-to-1 from an ambiguous concept, owning scope, success metrics, and architecture, then building a forecasting model (PyTorch, scikit-learn) on 250,000+ player stats.
- Built an OpenCV pipeline to track player movement (speed, positioning, formation) from match video, and evaluated forecasts against actual performance data, improving accuracy 35% from the initial workflow.
- Orchestrated AI coding agents to accelerate development, directing and reviewing output across the data, model, and inference layers.

TECHNICAL SKILLS

Languages: Python, C++, Java, JavaScript/TypeScript, SQL, Lua, Bash

Web & Backend: React, Node.js, Express, Django, REST APIs, HTML/CSS

Cloud & DevOps: AWS, Azure, GCP, Docker, Kubernetes, Terraform, GitLab CI/CD, Linux

Data & AI/ML: PyTorch, scikit-learn, OpenCV, Pandas, NumPy, LLMs, dimensional modeling, MongoDB

EDUCATION

The University of Texas at Austin

Austin, TX

Bachelor of Science in Computer Science, Minor in Business Administration