

Geetesh Veeravalli

geetesh.veeravalli@gmail.com · LinkedIn · github.com/geetesh22 · Phoenix, AZ

EDUCATION

Arizona State University, BS Computer Science May 2026

GPA 3.6 / 4.0 · Dean's List

COURSEWORK Data Structures & Algorithms, Operating Systems, Software Engineering, Programming Languages, Computer Organization, Information Assurance

PROFESSIONAL EXPERIENCE

AI Engineer I, Floodlight, Inc. Austin, TX · May 2026 – Present

- Own the Climate Value-at-Risk (CVaR) engine behind 300+ client reports (annual loss, 95/99% VaR, max loss)
- Shipped LLM-generated risk recommendations and per-hazard risk attribution across the dashboard and CVaR reports
- Cut report generation from ~120 s to under 10 s with a report-caching layer and PostgreSQL query optimizations
- Built a Model Context Protocol (MCP) server system exposing X-STILT atmospheric-model outputs to LLM agents
- Integrated Vulcan, EDGAR, and ODIAC emissions inventories for Scope 1/2 reporting; built a Green Building Score
- Launched credit-based pricing and payments and a rebuilt Next.js sign-up/onboarding flow, lifting completion ~30%
- Led a technical audit of the risk engine and designed the GWL-indexed scenario-planner architecture
- Shipped a default-deny Public Access Layer that serves unauthenticated demo reports to prospects
- Deployed the new Next.js marketing site to a GCP VM behind Cloudflare (SSL/origin certificates, env config)
- Resolved a production outage (runaway logs filled the disk, killing MySQL) and averted a destructive DB restore
- Prototyped a global air-quality downscaling model (LightGBM, CMIP6 projection); co-authoring a Climate VaR paper

Software Engineering Intern, Floodlight, Inc. Austin, TX · May 2025 – May 2026

- Automated six climate/energy ETL pipelines (n8n, GCS, PostgreSQL) with 100% on-schedule runs and alerting
- Ported the open-source X-STILT transport model from R to typed Python 3.12, cutting simulation time ~35%
- Added Smart Drill-Down and One-Click Suggest to the geospatial risk dashboard, cutting analyst time-to-insight 40%
- Wrote the platform Data Dictionary v0.1 and the full data-source and methodology documentation

Data Scientist, ASU LightWorks

Tempe, AZ · Nov 2024 – Present

• Data modeling and digital twin lead on an 18-month, \$2M USFS pilot proposal for a 1M+ acre biomass system

• Built an interactive Leaflet.js digital twin of the biomass system: suitability overlays, coded nodes, corridor distances

• Built the grant budget workbook and delivered-cost model pricing the biomass supply system for USFS funders

PROJECTS

DigiClips subscriber options, ASU Capstone · Software Lead

Aug 2025 – May 2026

i18n · UI overhaul · Live · [digiclipsproject.com ↗](#)

IBSO biomass optimization model, ASU · Dr. Rimjhim Aggarwal

Aug – Dec 2025

Python · Optimization

Climate Value-at-Risk engine, Floodlight

2025 – 26

Python · LightGBM · PostgreSQL · Production

X-STILT MCP server system, Floodlight

2026

Python 3.12 · MCP · Anthropic + OpenAI APIs · Production

TECHNICAL SKILLS

LANGUAGES	Python, TypeScript, JavaScript, SQL, R, C++, Java
ML	pandas, NumPy, scikit-learn, LightGBM, PyTorch
CLIMATE + GEO	CMIP6, ERA5, CAMS, X-STILT, Leaflet.js
PLATFORM	GCP (GCS, BigQuery, Compute), Docker, Cloudflare, PostgreSQL, n8n, Linux
AGENTS	Anthropic API, OpenAI API, Model Context Protocol, Claude Code