RÉSUMÉ / ROBOTICS, AI & SOFTWARE

Kilani Sai Nikhil

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PROFILE

Second-year Computer Science student exploring robotics, perception, local AI, and useful software. Technical lead for guidance, navigation, control, and communication simulation in Team SUTRA. I combine first-principles learning with AI-assisted development, documentation, and testing.

SKILLS & DEVELOPMENT APPROACH

Hands-on foundation: Python, SQL, Pandas, NumPy, Matplotlib, Git, Linux, Docker, Google Cloud.
AI-augmented development: MCP servers, custom agent skills, tool connectors, AI pair programming, multi-agent workflows, local model tooling.
Frameworks used with AI assistance: React / Next.js, Flutter / Dart, PyTorch, YOLO, SAHI, ONNX, LiteRT, FastAPI.
Current independent practice: Python algorithms, linear algebra, manual backpropagation, runtime debugging, agent tool contracts.

PROJECT & OPEN-SOURCE EXPERIENCE

SUTRA

Team robotics project · Hackathon prototype · 2026

Technical lead for guidance, navigation, control, and communication simulation. The wider team contributed perception, the ground-control dashboard, documentation, and operational planning.

ROS 2 · PX4 · C++ · Python · Gazebo · PyTorch

github.com/nikhil49023/SUTRA

AerialEye

Aerial detection model · Published on Hugging Face · 2026

Prepared the training dataset, trained the aerial detector, explored SAHI inference, and published model weights and documentation.

Python · PyTorch · YOLOv11 · SAHI · ONNX

huggingface.co/kilanisainikhil/AerialEye

Vitt

Personal finance application · Preparing for release · 2026

Built the Flutter application with AI-assisted development, connecting local Gemma inference through LiteRT, Android notification ingestion, and SQLite storage.

Flutter · Dart · LiteRT · Gemma · SQLite

github.com/nikhil49023/vitt-landing-page

Saara CLI

Dataset workflow CLI & SDK · Published on PyPI · 2026

Created and maintain the Python package, dataset workflow, and typed research-tool interface, with local model routing and configurable exports.

Python · Firecrawl · Ollama · vLLM · JSONL · Parquet

pypi.org/project/saara-ai/

Super Orchestrator

Open-source agent skill · Open-source framework · 2026

Authored the orchestration protocol and setup materials, combining custom agent skills, tool discovery, and code-review graph context.

Agent skills · MCP · Firecrawl · Docker · code-review-graph

github.com/nikhil49023/Portfolio/tree/main/skills/super-orchestrator

Neural networks, from scratch

Independent learning lab · Ongoing practice · 2026

Practice implementing and debugging the mathematical building blocks of a multilayer perceptron, alongside formal neural-network coursework.

Python · NumPy · Linear algebra · Backpropagation

github.com/nikhil49023/MLP

LEARNING & CREDENTIALS

Introduction to Neural Networks — Johns Hopkins University · Coursera · Sep 2026

Google Cloud Gen AI Master Certificate — Google Cloud Skills Boost · Jul 2026

Build & Deploy Agents in Production — Google Cloud Skills Boost

Deploy Your First Agent — Google Cloud Skills Boost

Agents 101 — AMD AI Academy · Apr 2026

Intermediate SQL — DataCamp

Introduction to SQL — DataCamp

SQL Professional Track — DataCamp · learning record

Data Manipulation with Pandas — DataCamp · learning record

FinAgent Hackathon certificate — Unstop · 2026

National Project Showcase · Vitt — NxtWave × OpenAI Academy × IndiaAI · 2026

Smart Horizon · Grand Finalist — Smart Horizon International Hackathon · Sep 2026

EDUCATION & DIRECTION

NxtWave Institute of Advanced Technology
B.Tech, Computer Science & Engineering · Hyderabad · 2025–2029
Current focus: software foundations, AI agent systems, and robotics. NeuroNav-ROS2 is a planned research capstone; internships and research collaborations are next goals.