

Aarav Mohanty

571-278-6402 | aarav.mohanty23@gmail.com | [linkedin.com/in/aaravmohanty](https://www.linkedin.com/in/aaravmohanty) | github.com/AaravMohanty

EDUCATION

Purdue University

Bachelor of Science in Computer Science, Minor in Mathematics

GPA: 3.7/4.0

Coursework: Data Structures, Discrete Math, Computer Architecture, Systems Programming, Algorithms Analysis

West Lafayette, IN

Expected May 2028

TECHNICAL SKILLS

Skills & Tools: SQL, Python, Java, C, C++, JavaScript/TypeScript, HTML/CSS, Git, Linux, AWS, Docker, Agile

Frameworks & Libraries: React, Next.js, Node.js, Flask/FastAPI, Pandas, NumPy, Scikit-Learn, Keras, Hugging Face

EXPERIENCE

Capital One

Jun. 2026

Software Engineering Intern | Python, Slack Bolt, WebSockets, DynamoDB, AWS ECS Fargate

- Architected a production **Slack bot (Python, Slack Bolt, WebSockets)** embedding an AI ops platform directly into Slack for **2,500+** users across **10** teams, with event handling, backend API integration, and Block Kit UI
- Engineered a real-time **SSE** pipeline streaming token-by-token AI responses with stateful **DynamoDB** state and **HITL** interrupts; **Dockerized** on **AWS ECS Fargate**, handling **100+** queries/day, cutting response time **50%**

Empower AI

Jul. 2025 – May 2026

Software Engineering Intern | Python, Pandas, Scikit-Learn, Keras

- Delivered anomaly-detection insights for Medicare Fraud by operationalizing **Isolation Forest, LOF, OCSVM**; achieved **97%** accuracy/**98%** recall and packaged findings into audit-ready reports for stakeholder decisions
- Engineered end-to-end **data pipelines** in Python (**Pandas, Scikit-Learn, Keras**) to ingest, clean, and prepare **30M+** Medicare/Medicaid records for model training, testing, validation, and stakeholder reporting

Ackuity

May 2025 – Jul. 2025

Software Engineering Intern | Chrome MV3, FastAPI, Presidio, React, OCR, BERT

- Built a full-stack Shadow-AI guardrail (**Chrome MV3, FastAPI, Presidio, React**) that intercepts prompts across **3** LLM platforms, blocking/redacting **40+** PII, credential, and classified-marking types in real time
- Designed a false-positive-resistant detection engine with two-tier confidence thresholds and **OCR**-based redaction; authored a **40K**-example synthetic pipeline to fine-tune a **DistilBERT** classifier exported to **ONNX**

Kihara Bioinformatics Laboratory

Jan. 2025 – May 2025

Machine Learning Research Intern | Python, PyTorch, PyRosetta, PyMol

- Designed a custom reward function for a **PPO**-based RL pipeline (**Python, PyTorch**) to fine-tune **LLM**-driven structure predictions, refining **AlphaFold2** outputs on **100+** beta-amyloid protein structures/sequences
- Improved **RMSD** structural accuracy and yielded a **5%** lift on target structural metrics; used **PyRosetta** and **PyMol** for structural preprocessing and simulation, and presented findings to lab leadership

PROJECTS & CLUBS

Amdahl (Co-Founder) | Python, LangChain, ChromaDB, AWS GovCloud

2026

- Built automated document-extraction workflows parsing **10,000+** pages of multi-format legal records, cutting manual retention-analysis time by **85%** and standardizing metadata pipelines for government agencies

Radius (Co-Founder & Backend Lead) | Python, FastAPI, SQLAlchemy, PostgreSQL

2026

- Owned the compliance engine for a stablecoin payment-attestation platform: built a **15+** endpoint **FastAPI** backend with **Travel Rule** automation across **30+** jurisdictions, risk scoring, and cryptographic wallet verification

Boiler Quant (Quantitative Trading Analyst) | Python, WebSockets, yFinance, Financial Analysis

2025

- Defined KPIs and built an async Python pipeline that streams/cleans WebSocket data for **20+** crypto pairs; applied **RSI, Bollinger Bands, FMA** with backtests to estimate **2.5%** projected Return on Investment

ArisTalkle: BoilerMake Hackathon Winner (Co-Founder) | Python, Next.js, Flask, MongoDB

2025

- Delivered a 24-hour MVP with **AI-generated response videos** using **Next.js, Flask, MongoDB**; led a team of 4 and won BoilerMake XI by focusing on usability and measurable feedback

PurdueTHINK Consulting (Technical Lead) | Python, Next.js, SQL, Data Analytics, REST APIs

- Built a data-scraping pipeline for Purdue's Data Mine (cleaned **6.5K+** records; scraped **1.5K** LinkedIn) and deployed a **Next.js+SQL** app with **RESTful APIs** and **visualizations**, enabling targeted alumni engagement