

# Kanav Atre

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## EDUCATION

### Purdue University

West Lafayette, IN

*Bachelor of Science Double Major in Data Science & Applied Statistics*

*Expected Dec 2026*

- **Coursework:** Data Mining & Machine Learning, Complex Algorithms, Relational Databases, Time Series Analysis
- **Involvement:** Purdue VIP Student Ambassador; 2 x Purdue LaunchPad Project Mentor; Chess Club Member

## EXPERIENCE

### Software Engineer Intern

May 2025 – Aug 2025

*KetteQ*

*Atlanta, GA*

- Built a real-time migration pipeline for **10M+ CRM records** from Neon to ClickHouse
- Wrote & Optimized large-scale **PostgreSQL** queries, enabling **sub-second** refresh
- Developed data validation scripts in Python, reducing manual validation by **10+ hours** per week
- Deployed CDC snapshotting, archival scripts, and visualizations using **Kafka & Apache ECharts**

### Undergraduate ML Researcher

Aug 2023 – May 2024

*Purdue VIP (Vertically Integrated Projects)*

*West Lafayette, IN*

- Statistically concluded a **120% increase** in post-COVID pedestrian activity and delivered a deployable model
- Built a multi-stage object detection pipeline with Faster R-CNN & Multi-task loss, trained on **50,000 images**
- Implemented core detection components including RPNs, RoI pooling, and NMS for scalable multi-object inference

### ML Engineer Intern

Aug 2022 – Jan 2023

*Renzoe Box*

*Austin, TX*

- Improved **skin-tone detection** algorithms, contributing to the Renzoe-Match engine
- Integrated **YOLOv4** and **dlib-based** facial detection pipelines for **120%** faster image processing
- Wrote web-scraping scripts with **BeautifulSoup**, improving product recommendation accuracy
- Constructed and preprocessed a **1000+ image** dataset for model training

## PROJECTS

### Credify.ai | *Fetch.ai uAgents, GPT-4o, RAG, MV3, Claude*

Aug 2025 – Oct 2025

- Built a real-time credibility scoring system for Reddit posts using live context extraction
- Designed a **multi-agent backend** using Fetch.ai uAgents with gateway orchestration and NYT-based retrieval
- Implemented **LLM-based credibility scoring** with JSON schemas and exposed results via REST API
- Built an **MV3 extension** to inject a **React** dashboard using MutationObserver, tab listeners, and cached analysis

### BoilerFixIt | *React, Node.js, Express, MongoDB, JWT, Stripe*

May 2025 – Sept 2025

- Co-built the Node.js/Express backend with **MongoDB**, **JWT auth**, **Stripe** & automated emails
- Designed **RESTful APIs** to manage user accounts, service requests & payments
- Designed & Tested **JSON schemas** to structure data models and API payloads
- Implemented a **React** frontend with authenticated routing

### Autonomous Drone Delivery System | *Python, OpenCV, ROS, A\*, RRT*

Jan 2025 – May 2025

- Built a CV landing decision pipeline using depth sensing, 3D point clouds, and RANSAC plane fitting
- Automated geometric reasoning over surface normals, slope, and flatness with **A\*** and **RRT** path planning
- Collaborated with ROS and hardware teams to integrate perception with flight control, reducing landing-zone failures through iterative field testing

## TECHNICAL SKILLS

**Languages:** Python, SQL, Java, R, Bash, C/C++, JavaScript, TypeScript, HTML/CSS

**Frameworks:** REST APIs, FastAPI, Flask, Node.js, Express, TensorFlow, PyTorch, React, WebSockets, ROS

**Tools:** Azure, Databricks, AWS (EC2, Lambda), Git, GitHub Actions, CI/CD, Docker, Kafka, Linux, GCP

**Libraries:** Pandas, NumPy, Matplotlib, LangChain, OpenCV, YOLO, Codex