# Akilan "Akil" Rammohan

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# **EDUCATION**

### University of Wisconsin-Madison

Madison, WI

Bachelor's of Arts, Computer Science and Data Science

Sep 2022 — May 2026

• Relevant Coursework: Algorithms, Data Structures, Machine Organization, Compilers, Computer Engineering, Discrete Math, Linear Algebra, Machine Learning, Deep Learning, Programming Languages, Operating Systems, Algorithmic Game Theory

# WORK EXPERIENCE

**Data Analyst** 

May 2025 — Sep 2025

Think Fast Talk Smart, the podcast

Los Altos, CA

- Explored optimal episode posting cadence and titling patterns using linear regresson and vector embeddings
- Translated business and strategy team directives into detailed statistical analyses, resulting in 50% more ad revenue
- Technologies: Python, SQL, matplotlib, pandas, Weaviate, OpenAI API, scikit-learn

SAIL Fellow

May 2025 — Aug 2025

School of Computer, Data, and Information Sciences (CDIS)

Madison, WI

- Developed an agentic news aggregator that handles bias and intelligently sources reputable news
- Designed hierarchical agent team, which sourced news data using RSS feeds, web scraping, and news APIs
- Built custom agent tools/harness, ran and designed custom evals
- Technologies: CrewAI, Weaviate, Docker, OpenAI API, Next.js, FastAPI

### Undergraduate Researcher

May 2024 — May 2025

NeuroErgonomics Lab

Madison, WI

- Developed VR app for police training, deployed to HTC Vive and Meta Quest 3
- Implemented LLM-enabled AI NPCs to replace in-person acting requirements of contemporary police training
- Led participant studies with and UWPD officers, collected feedback, and implemented SME-recommended changes
- Technologies: Unity, C#, InworldAI, ConvAI, Python, R, Tobii, Pupil Labs

# **PROJECTS**

# Current side project: AI-powered Learning Management System (LangGraph, FastAPI, Docker, pgvector, Next.js, Vercel AI SDK)

- Design agents to help educators manage course logistics and draft course materials
- Implement adaptive AI tutor and reimagine lessons as chats with AI agents to better engage students
- Build agent tools, design and run evals, and robustly test custom AI agents for course automation and material generation

#### Deepfake Audio Detection (huggingface, pandas, Kaggle)

- Compared CNN, transformer, and conformer neural network architectures for deepfake audio detection
- Finetuned downstream classifiers in open source wav2vec2 and wav2vec2-conformer sequence classification models

## TAVRFinder (Swift, SwiftUI)

- Developed iOS app that uses sizing algorithms to properly size transcatheter aortic valve replacement devices
- Communicate with SMEs (physicians) and translate needs into specific app features

### NBA Win Predictor (scikit-learn, PyTorch, pandas, Kaggle)

- Neural network classifier to predict a win or loss for a team given their matchup and season stats up to that point
- Achieved 64% prediction accuracy after hyperparameter search and other model improvements

### SKILLS

- Programming Languages: Python, Java, JavaScript/TypeScript, C, R, C#(Unity), Haskell, Swift
- Technologies: Cursor/Claude Code, GitHub Actions, LangGraph, Git, Docker, FastAPI, PosgreSQL, PyTorch, Next.js, RAG, PyTest