

ADVAIT NAMBOODIRI

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Education

University of Wisconsin-Madison (Madison, WI)
Majors: Bachelor of Science - Computer Science, Data Science
Certificate: Mathematics
GPA: 4.0 (Dean's List – 2 Semesters)

Sep 2024- Dec 2027

Work Experience

Cognisee AI (Portland, OR / Dubai, United Arab Emirates - Remote)

Founding Systems Software Developer Intern (Neuro-Symbolic Research Work)

June 2025 – Aug 2025

- Designed a hybrid AI architecture combining Python, Prolog, Flask, and React for neuro-symbolic reasoning.
- Integrated rule-based inference with large language models to build knowledge engineering pipelines that analyzed 50+ domain-specific legal contracts with structured reasoning, reducing hallucinations by 20%.
- Conducted research on knowledge engineering, knowledge graph integration, and reasoning frameworks.

Abu Dhabi Early Childhood Authority (Abu Dhabi, U.A.E.)

Year-Long Software Development Intern

Aug 2022 – Aug 2024

- Built a Java + MySQL application to capture developmental milestone data that tracked around 500+ children's milestones ranging through 10 hospitals with anonymized data to generate early-intervention risk profiles.
- Developed software that analyzed developmental data to enhance early disability detection, adopted by the Abu Dhabi Government as their data capture application software in order to support timely caregiver interventions.
- Reduced manual data entry errors by 60% using a scalable database system for sensitive longitudinal data.

Projects

Hybrid Neuro-Symbolic AI Platform for Legal Contract Analysis *Flask, React, Node.js, Python, Prolog, OpenAI API, Rust, Neo4j*

- Built a hybrid AI platform for legal contract analysis by integrating Prolog symbolic reasoning with a basic LLM, cutting hallucinations by 20% across 50+ contract samples and incorporating structured knowledge bases.
- Developed Flask backend+React frontend enabling real-time clause extraction and governing law identification, with RESTful APIs and asynchronous pipelines boosting auditability for compliance-critical industries.

Tiny Rafeeq – (Child-friendly playdate matching app) *Flutter, Python, Node.js, MySQL*

- Built a playdate app for parents with compatibility algorithms (distance, schedules, temperament) that improved match success in testing; integrated a carousel with calendar APIs + Google Maps for real-time invites, reducing scheduling friction and supporting scalable caregiver usability across diverse user groups.
- Created interactive dashboards and activity logs with Python (Pandas, Matplotlib) and MySQL to track milestones and generate insights such as weekly developmental wrap-ups, incorporating anomaly detection for new activity spikes, secure data handling to ensure privacy and optimized queries to reduce report generation latency.

Project Pinguinus (Disability Risk Tracking Platform) *Java, MySQL, Python*

- Devised a full-stack Java-MySQL app for the Abu Dhabi Early Childhood Authority to track early disability indicators in 500+ children, implementing CRUD operations that enabled timely, data-driven caregiver interventions.
- Designed normalized database schemas and implemented automated risk profiling algorithms, reducing reporting time by 60%; system deployed across 10 Abu Dhabi hospitals and earned official certification from Abu Dhabi Government.

Skills

- Programming Languages:** Java, C, Python, JavaScript, Ruby, Prolog, SQL, TypeScript, HTML, CSS
- Frameworks & Development:** Flask (Backend), React, Flutter (Frontend) JavaFX, PyTorch
- Databases:** MySQL, MongoDB, Firebase, Azure, Power BI
- Tools & Analytics:** MATLAB, Git, SAS Software, Docker, TensorFlow

Extracurriculars

Firmware Programmer for Wisconsin Racing (Madison, WI)

Jan 2025 – Present

- Contributed to the university Formula SAE team, enhancing car performance by analyzing design efficiencies and implementing steering wheel code, and integrating telemetry data pipelines to optimize overall vehicle performance.
- Programmed embedded C firmware for motor control and steering modules, leveraging interrupt-driven routines.

Teacher - Emerging Leaders Program (Student Leadership Program)

Aug 2025 - Present

- Selected to join a cohort of students in mentoring future campus leaders for the SLP's flagship initiative.
- Facilitate eight weekly workshops grounded in the Social Change Model of Leadership Development.

MADDATA 24-Hour Hackathon (dotData - UW Data Science Organization)

Feb 2025

Among 40 teams, received honorable mention for building "Wavelength", a Spotify Connection and Mood App in 24 hours.