

# Aadarsha Gopala Reddy

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agopalareddy.github.io



## SUMMARY

Data-focused MS CS student specializing in ML, analytics, and data science. Strong Python, SQL, TensorFlow/Keras, visualization. Seeking data science, ML engineering, or analytics roles.

## SKILLS

**Programming Languages:** Java, C++, Python, R, JavaScript/TypeScript, PHP, C#, SQL, Rust.

**Frameworks & Libraries:** TensorFlow, PyTorch, Scikit-learn, NumPy, Pandas, Node.js, Vue.js, React, Socket.IO, Gemini/OpenAI API.

**Tools & Technologies:** Git, Tableau, Power BI, MySQL, AWS, MongoDB, Microsoft 365, Google Workspace.

**Core Competencies:** Analytical Skills, Problem Solving, Critical Thinking, Communication, Team Collaboration, Leadership, Adaptability, Project Management.

**Languages:** Proficient in English, Kannada, Telugu; Fundamental in Hindi.

## EDUCATION

### M.S. in Computer Science

Expected Graduation: May 2026

Washington University in St. Louis, St. Louis, Missouri, USA

- **GPA:** 3.52/4.0
- *Coursework:* Advances in Computer Vision, Data Manipulation & Management at Scale, Artificial Intelligence for Health, Neurobiology of Learning & Memory, Advanced Neuroscience Research Methods, Computational Biology, Deep Learning, Systems Security, Software Development, and Introduction to Quantum Computing.

### B.A. in Computer Science and Data Analytics; Economics Minor

May 2023

Ohio Wesleyan University, Delaware, Ohio, USA

- **GPA:** 3.42/4.0
- *Honors:* Golden Bishop Award, Mortar Board, Florence Leas Prize, Spring 2022 and Spring 2023 Dean's List.
- *Coursework:* Computer Architecture, Theory of Computation, Algorithms, Big Data, Data Visualization, Data Analytics, Databases, Machine Learning, Artificial Intelligence, Applied Statistics.

## EXPERIENCE

### AI Engineer Intern

June 2025 - August 2025

Critterio, Inc., Remote

- Engineered a full-stack social media simulation and recommendation system, developing a robust data generation pipeline with persona-based modeling in TypeScript and a foundational recommendation algorithm using TensorFlow/Keras.
- Built an extensive testing infrastructure in Python with a configurable CLI for performance validation and reproducibility, establishing critical debugging practices for complex ML systems.
- Worked across the end-to-end ML lifecycle—from synthetic data generation and preprocessing to model training and debugging—while establishing Git workflows for collaborative development.

### Graduate Assistant with the Taylor Family Center for Student Success

August 2024 - May 2025

Washington University in St. Louis, St. Louis, Missouri, USA

- Led strategic initiatives for First-Generation, Limited-Income (FLI) student success, planning and executing key community-building programs like "End of Week Unwind."
- Drove marketing efforts by managing social media and newsletters, and pioneered data assessment to translate user interaction insights into strategies that measurably improved engagement.
- Served as a department representative for the Executive Director and provided integral operational support to the leadership team.

### Data Analyst Intern

June 2023 - May 2024

Lab714, Boca Raton, Florida, USA

- Achieved a 20% reduction in costs for clients through data-driven insights.
- Engineered a software using React and AWS to extract, organize, and analyze data from IoT devices.

## RESEARCH EXPERIENCE

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### Domain-Adversarial Learning for Vehicle-Agnostic Driving Signature

Spring 2026 (in progress)

DRIVES Project, Washington University in St. Louis, St. Louis, Missouri, USA

- Implementing a Domain Adversarial Neural Network (DANN) to improve cross-domain generalization of driving behavior-based ML models for Alzheimer's Disease detection.

### Multimodal Prediction of Alzheimer's Disease

Fall 2024

Washington University in St. Louis, St. Louis, Missouri, USA

- Developed a multimodal approach for early detection using OASIS-1 by combining MRI imaging (CNNs, TensorFlow/Keras) and clinical data (XGBoost, Scikit-learn).
- Built a combined classifier leveraging both imaging and clinical features with comprehensive evaluation and documentation in NeurIPS format.

### Opinion Survey on AI in the Workplace

Spring 2023

Ohio Wesleyan University, Delaware, Ohio, USA

- Designed, fielded, and analyzed a survey experiment ( $N \sim 1,000$  across four industries) under faculty mentorship; surfaced trends in perceptions of AI's workplace impact using R and Tableau.

### AI in Modern Board Games (Lost Cities)

Summer 2022

Ohio Wesleyan University, Delaware, Ohio, USA

- Built a Java implementation of Lost Cities and an AI agent; achieved 13/18 wins against a human baseline in testing.

## LEADERSHIP

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### Graduate and Professional Student Council (GPSC) | Washington University in St. Louis

*Vice President, Graduate-Professional Council (GPC) Chamber*

Summer 2025 - Present

- Actively support the GPC Co-President in fulfilling leadership responsibilities and advancing council goals for the Master's and Professional student body. As per the constitution, prepared to assume the duties and powers of the Co-President in their absence to ensure leadership continuity.
- Represent and advocate for GPC constituents' interests to university administration and faculty.

*Constitution Committee Chair*

- Leading the committee to draft and finalize the constitution, ensuring alignment with GPSC's mission and values.

*Representative, McKelvey School of Engineering; Member,*

Fall 2024 - Spring 2025

*Membership/Constitution/Outreach Committee*

- Co-authored GPSC constitution and led outreach that expanded membership and participation.
- Advocated for McKelvey students' interests to administrators and faculty.

### Umang (Indian Graduate Student Association) | Washington University in St. Louis

*Treasurer*

Summer 2025 - Present

- Managing club finances, including budgeting, expense tracking, and fundraising to ensure sustainable operations and successful event planning.
- Collaborating with members to organize cultural events and festivals, promoting cultural awareness and fostering community among Indian graduate students.

### HackWashU | Washington University in St. Louis

*Treasurer*

Fall 2024 - Summer 2025

- Managing the club's finances, including budgeting and expense tracking, to ensure sustainable operations and successful event planning.
- Coordinating fundraising efforts and sponsorship outreach to support club activities and initiatives.

## PROJECTS

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### Datacenter Cooling Optimization using Deep Reinforcement Learning

August 2024 - December 2024

- Implemented multiple DRL algorithms (DDQN, PPO, SAC) integrated with EnergyPlus simulations for datacenter cooling optimization, achieving up to 35.8% improvement over baseline controllers.
- Developed custom environment using Sinergym that simulates a small datacenter with stochastic weather conditions, focusing on optimizing energy efficiency in small to mid-sized facilities.

### Interactive Storybook – Web Development Project

August 2024 - December 2024

- Built an interactive app with Vue.js, Node.js, and MongoDB, enabling AI-driven content generation and branching story narratives.
- Integrated OpenAI API for dynamic text/image generation, offering multiple story progression choices.

### AI Agent for Connect 4

May 2022 - December 2022

- Implemented alpha-beta pruning with iterative deepening and evaluation heuristics; achieved 100% wins against baseline AI in simulations.