Aadarsha Gopala Reddy

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SUMMARY

MS Computer Science student at Washington University in St. Louis with hands-on experience in machine learning, data engineering, and full-stack development. Skilled in building end-to-end ML pipelines, data-intensive applications, and distributed systems using Python, TensorFlow, SQL, Spark, and cloud technologies. Seeking software engineering, data, or ML roles across industries.

SKILLS

Programming Languages: Java, C++, Python, R, HTML, CSS, 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; Conversational in Hindi.

EDUCATION

M.S. in Computer Science   August 2024 - *May 2026

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

- **GPA:** 3.64/4.0
- *Coursework:* Computational Biology, Computer Vision, Data Manipulation & Management at Scale, Artificial Intelligence for Health, Deep Learning, Systems Security, Software Development, and Quantum Computing, Neurobiology of Learning & Memory, Advanced Neuroscience Research Methods.

B.A. in Computer Science and Data Analytics; Economics Minor   August 2020 - 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

Graduate Teaching Assistant - CSE 5114: Data Manipulation and Management at Scale   January 2026 - *Present

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

- Guiding students in building data pipelines and real-time processing systems using Python, SQL, Airflow, Spark, Kafka, Flink, and Snowflake.
- Conducting oral midterm exams simulating technical interviews on distributed storage, fault tolerance, and scaling; mentoring capstone project groups on data architecture.

Graduate Assistant with the Taylor Family Center for Student Success   November 2025 - *Present

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

- Leading data analysis and storytelling initiatives, tracking program impact through SA Tools, survey design, and social media analytics for evidence-based decision-making.
- Administering the TFCSS website and developing process manuals to establish best practices in data evaluation for staff.

AI Engineer Intern   June 2025 - August 2025

Crittero, Inc., Remote

- Engineered a full-stack social media simulation and recommendation system with persona-based data generation in TypeScript and a recommendation algorithm using TensorFlow/Keras.
- Built a Python testing infrastructure with a configurable CLI for ML performance validation, working across the end-to-end ML lifecycle from data generation to model training.

Graduate Assistant with the Taylor Family Center for Student Success   August 2024 - May 2025

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

- Led FLI student success initiatives and pioneered data assessment of social media and newsletters to translate user interaction insights into strategies that measurably improved engagement.

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

Domain-Adversarial Learning for Vehicle-Agnostic Driving Signature August 2025 - *May 2026

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 Preclinical Alzheimer's Disease prediction.

Multimodal Prediction of Alzheimer's Disease August 2024 - December 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 January 2023 - May 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) May 2022 - July 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

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

Vice President of the Graduate-Professional Council (GPC) Chamber May 2025 - *Present

- Managing the Council's unified Microsoft Teams workspace and website, establishing centralized communication hubs and maintaining up-to-date information on events, governance, and resources.
- Representing the graduate student body to university leadership and supporting the GPC President in advancing strategic council priorities.
- Chaired the Constitution Committee (Aug 2025 - Feb 2026), coordinating stakeholder input to draft and ratify GPSC governing documents.

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

Treasurer June 2025 - October 2025

- Managed club finances and organized cultural events promoting community among Indian graduate students.

HackWashU | Washington University in St. Louis

Treasurer December 2024 - July 2025

- Managed finances and coordinated fundraising and sponsorship outreach to support hackathons and coding events.

PROJECTS

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 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 August 2022 - December 2022

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