

# Aadarsha Gopala Reddy

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## EDUCATION

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**M.S. Computer Science** | Washington University in St. Louis, St. Louis, Missouri, USA August 2024 - \*May 2026

- **GPA:** 3.52/4.0
- **Coursework:** 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 Quantum Computing.

**B.A. Computer Science & Data Analytics** | Ohio Wesleyan University, Delaware, Ohio, USA August 2020 - May 2023

- **Minor:** Economics
- **GPA:** 3.42/4.0
- **Coursework:** Computer Architecture, Theory of Computation, Algorithms, Big Data, Data Visualization, Data Analytics, Databases, Machine Learning, Artificial Intelligence, Applied Statistics.

## RESEARCH EXPERIENCE

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**Domain-Adversarial Learning for a Vehicle-Agnostic Driving Signature to Detect Preclinical Alzheimer's Disease** | DRIVES Project, Washington University in St. Louis, St. Louis, Missouri, USA

*Master's Thesis*

August 2025 - \*May 2026

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

**Multimodal Prediction of Alzheimer's Disease** | Washington University in St. Louis, St. Louis, Missouri, USA

*CSE 419A - Introduction to AI for Health*

August 2024 - December 2024

- Developed a multimodal approach for early detection of Alzheimer's Disease using the OASIS-1 dataset.
- Implemented deep learning models (CNNs) using TensorFlow/Keras for MRI image analysis and machine learning techniques (XGBoost, Scikit-learn) for clinical data processing.
- Created a combined classifier leveraging both imaging and clinical data.
- Documented the project in NeurIPS format with comprehensive performance evaluation metrics and visualizations.

**Opinion Survey on Artificial Intelligence in the Workplace** | Ohio Wesleyan University, Delaware, Ohio, USA

*DATA 490 - Independent Study*

January 2023 - May 2023

- Designed, fielded, and investigated a survey experiment on the impact of AI on 250 employees within each of four industries using survey data under Dr. Nicholas Dietrich's mentorship.
- Analyzed data using Tableau dashboards and R to identify trends and common opinions.
- Presented preliminary results on AI's positive impact on employee work at the OWU Spring Student Symposium.

**Connect 4 AI** | Ohio Wesleyan University, Delaware, Ohio, USA

*CS 340 - Artificial Intelligence*

August 2022 - December 2022

- Developed a Connect 4 game in Java with a single-player mode against an AI opponent and a multiplayer mode for two human players.
- Used the alpha-beta pruning algorithm to create a challenging AI opponent that can test players of all skill levels.

**Artificial Intelligence in Modern Board Games - Lost Cities AI** | Ohio Wesleyan University, Delaware, Ohio, USA

*Summer Science Research Program*

May 2022 - July 2022

- Developed a digital version of the Lost Cities card game using Java in 2 weeks under Dr. Sean McCulloch's mentorship.
- Implemented an intelligent agent that played the game against a human, winning 13 of 18 games in testing.

## TEACHING EXPERIENCE

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**Computer Science Lab Assistant** | Ohio Wesleyan University, Delaware, Ohio, USA

January 2022 - May 2023

- Tutored approximately ten students for over 6 hours per week, assisting with homework and exam preparation for introductory, intermediate, and advanced computer science coursework.
- Tested and graded assignments of around 35 students in introductory and intermediate computer science classes.

INDUSTRY EXPERIENCE

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 attendance and impact through SA Tools, survey design and analysis, and social media analytics to drive evidence-based decision-making.
- Administering the TFCSS website, including event updates, submission forms, scheduling integration, content creation for spotlight stories, and conducting regular website audits in partnership with SA Marcomm.
- Developing comprehensive process manuals and training materials to establish best practices in data evaluation and storytelling for TFCSS staff.

AI Engineer Intern | Crittero, Inc., Remote June 2025 - August 2025

- 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.
- Created an extensive testing infrastructure in Python, featuring a configurable CLI for performance validation and reproducibility, which established critical debugging practices for complex ML systems.
- Gained hands-on experience in 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 and communication efforts by managing social media channels and co-developing targeted newsletters for alumni and the Forward Families program.
- Pioneered data assessment efforts by tracking and analyzing user interaction on Instagram and newsletters, translating insights into actionable engagement strategies.

Data Analyst Intern | Lab714, Boca Raton, Florida, USA June 2023 - May 2024

- 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.

Media Center Assistant | Ohio Wesleyan University, Delaware, Ohio, USA September 2021 - May 2023

- Set up and tore down audio-visual equipment, logged equipment movement using Sierra, and created appointments for use of spaces.
- Assisted with providing AV systems and support for events, ensuring successful setup and execution.

SKILLS

**Programming Languages:** Java, C++, Python, R, JavaScript/TypeScript, PHP, C#, SQL, Rust.  
**Frameworks & Libraries:** TensorFlow, PyTorch, Scikit-learn, Keras, NumPy, Pandas, Matplotlib, Seaborn, Node.js, Vue.js, React, Socket.IO, Gemini/OpenAI API.  
**Tools & Technologies:** L<sup>A</sup>T<sub>E</sub>X, Git, Tableau, Power BI, MySQL, AWS, MongoDB, MySQL, 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.

HONORS

Dean’s List, Ohio Wesleyan University Spring 2022 & Spring 2023  
Mortar Board National College Senior Honor Society Membership, Ohio Wesleyan University Spring 2023  
Golden Bishop Award, Ohio Wesleyan University Spring 2023  
Florence Leas Sophomore Prize, Ohio Wesleyan University Spring 2022  
First Place - 32nd Annual Spring Programming Contest, Denison University Spring 2022  
International Baccalaureate Scholarship, Ohio Wesleyan University 2020  
Scholar, Next Genius Scholarship Foundation 2020

## PRESENTATIONS

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### Artificial Intelligence

September 2024

*Engineering Workshop by AGES & Science Coach, Washington University in St. Louis*

### Artificial Intelligence Opinion Survey

April 2023

*Spring Student Symposium, Ohio Wesleyan University*

### Artificial Intelligence in Modern Board Games

September 2022

*Patricia Belt Conrades Summer Science Research Symposium, Ohio Wesleyan University*

## LEADERSHIP EXPERIENCE

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### Graduate Student Affairs Advisory Board (GSAAB) | Washington University in St. Louis, St. Louis, Missouri, USA

*Member*

August 2025 - Present

- Providing strategic feedback to the Vice Chancellor for Student Affairs on critical issues impacting graduate student life and experience.
- Engaging in critical dialogue with senior university leaders, including the Dean of Students, to advocate for improvements to the graduate student experience across all academic programs.
- Contributing to monthly discussions on student affairs policies and initiatives to enhance support systems and resources for the graduate student community.

### Center for Career Engagement (CCE) Student Advisory Board |

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

*Graduate Student Member*

August 2025 - Present

- Guiding the strategic direction of the Center for Career Engagement to ensure services align with diverse needs of graduate students from all academic backgrounds and career interests.
- Providing insights on career engagement programs, workshops, and resources to enhance accessibility and effectiveness for the WashU graduate student community.
- Building community around career development initiatives and fostering collaboration between the CCE and graduate student body.

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

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

May 2025 - Present

- Created and now manage a unified Microsoft Teams workspace for the Council, establishing the first centralized hub for communication, meetings, and cross-committee coordination.
- Built the committee membership roster and currently maintain it; implemented ranked-choice preferences to allocate members efficiently across committees and balance workload.
- Manage access and information architecture for the Council's Box repository, ensuring secure, organized, and searchable documentation.
- Currently leading an initiative to establish a path toward administrative, operational, and fiscal autonomy for GPSC, reducing reliance on Office of the Provost funding and positioning for student-directed governance.
- Represent the Master's and Professional student body to university leadership and support GPC Co-Presidents in advancing council priorities.

*Constitution Committee Chair*

August 2025 - Present

- Chairing the Constitution Committee to draft and ratify GPSC governing documents by the end of Fall 2025.
- Coordinating stakeholder input and aligning bylaws with GPSC's mission and university policies to ensure a sustainable governance framework.

*McKelvey School of Engineering Representative, and member of the Membership, Constitution, & Outreach Committee*

October 2024 - Spring 2025

- Co-authored the GPSC's constitution and spearheaded outreach initiatives that expanded membership.
- Advocated for the interests and concerns of McKelvey School of Engineering students.

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

*Treasurer*

June 2025 - October 2025

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

**HackWashU** | Washington University in St. Louis, St. Louis, Missouri, USA

Treasurer

DDecember 2024 - July 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.
- Collaborating with club members to organize hackathons and coding events, fostering a culture of innovation and teamwork among participants.

**Hindu Student Council** | Ohio Wesleyan University, Delaware, Ohio, USA

Treasurer and Founding Member

January 2023 - May 2023

- Co-established the council and organized events promoting Hindu cultural heritage, fostering youth leadership skills, and creating volunteer opportunities.
- Managed organizational finances, developing and submitting formal budget requests to secure funding for council activities and events.

**Wesleyan Council on Student Affairs (Student Government)** | Ohio Wesleyan University, Delaware, Ohio, USA

Budget Committee Senator

August 2022 - May 2023

- Actively contributed to the Budget Committee’s process of proposing, discussing, and deciding on senate bills, while overseeing the allocation of an annual budget exceeding \$350,000 to campus individuals and organizations.
- Recipient of the WCSA Best New Member Golden Bishop Award, recognized for making the greatest overall contribution to WCSA’s mission through drive, high achievement on the Budget Committee, and providing unique, valuable perspectives.

**The Neurds (Neuroscience Club)** | Ohio Wesleyan University, Delaware, Ohio, USA

Member

August 2022 - May 2023

- Presented on AI at Brain Fair 2023 during Brain Awareness Week, bridging neuroscience and technology.
- Contributed to the planning and marketing of club events, directly supporting educational enrichment and networking opportunities for members.
- Participated in initiatives promoting neuroscience awareness and community service, aiming to enhance members’ intellectual and career development pathways.

**Campus Programming Board** | Ohio Wesleyan University, Delaware, Ohio, USA

Vice President of Finance

January 2022 - December 2022

- Successfully planned, created, and implemented budgets totaling over \$86,000 each year for campus events.
- Initiated and led revamp of organization’s governing documents, implementing efficient practices.
- Negotiated an additional \$10,000 per year with the Wesleyan Council on Student Affairs.

**Mathematics, Computer Science & Data Analytics Student Board** | Ohio Wesleyan University, Delaware, Ohio, USA

Member

August 2021 - May 2023

- Analyzed faculty evaluations to provide actionable insights for departmental improvements.
- Gathered and synthesized student feedback on course offerings to recommend enhancements to the department.

**Horizons International** | Ohio Wesleyan University, Delaware, Ohio, USA

Marketing Committee Chair

August 2021 - May 2022

- Led social media campaigns, designed materials to boost international student event awareness and engagement.
- Organized marketing for cultural exchange, creating a welcoming environment for international students and fostering cross-cultural understanding within the university community.

PROJECTS

**Datacenter Cooling Optimization using Deep Reinforcement Learning** | Washington University in St. Louis, St. Louis, Missouri, USA

August 2024 - December 2024

- Implemented multiple deep reinforcement learning algorithms (DDQN, PPO, SAC) integrated with EnergyPlus simulations to optimize datacenter cooling systems.
- Achieved 35.8% energy efficiency improvement over baseline using DDQN, addressing the underserved small to mid-sized datacenter market.
- Created a comprehensive framework integrating building energy simulation with reinforcement learning for dynamic thermal management.

**Interactive Storybook** | Washington University in St. Louis, St. Louis, Missouri, USA August 2024 - December 2024

- Developed an interactive storytelling application using Vue.js, Node.js, and MongoDB with AI-powered content generation, enabling users to create branching narrative stories.
- Implemented OpenAI API integration for dynamic story text and contextual image generation based on user choices.
- Created a visual path tracking interface to help users navigate complex branching narratives and story progression.

**Socket.IO Multi-Room Chat Application** | August 2024 - December 2024

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

- Developed a feature-rich multi-room chat application using Node.js and Socket.IO with password-protected rooms, private messaging, and user moderation capabilities.
- Implemented room management features including creator privileges, user tracking, and persistent nickname storage.
- Created real-time bidirectional event-based communication with responsive design for optimal user experience.

**PHP Calendar Application** | Washington University in St. Louis, St. Louis, Missouri, USA August 2024 - December 2024

- Developed a feature-rich personal calendar and event management web application using PHP, MySQL, HTML5, CSS3, and JavaScript.
- Implemented secure user authentication, CSRF protection, SQL injection prevention, and input sanitization.
- Created an interactive calendar interface with comprehensive event management capabilities for creation, editing, and tracking.

**Parkinson's Disease AI Diagnosis Software** | June 2022 - July 2022

MITxSureStart FutureMakers Create-a-Thon Program, Remote

- Developed AIParkinScan software for Parkinson's diagnosis using neural networks, spectrograms, and the Random Forest algorithm trained on audio and image data.