Manasvi Khandelwal

(608) 236-3129 | manasvi.spc@gmail.com | linkedin.com/in/manasvi-khandelwal-21416a281/

Education

Bachelor of Science in Computer Science and Mathematics | *University of Wisconsin–Madison* *Madison, WI*
Expected May 2027

- **Certificate**: Data Science
- **GPA**: 4.00
- **Honors**: Dean's List – Fall 2023, Spring 2024, Fall 2024, Spring 2025
- **Relevant Coursework**: Object Oriented Programming, Data Structures, Algorithms, User Interfaces, Artificial Intelligence, Data Science Programming, Discrete Math, Linear Algebra, Multivariable Calculus

Technical Skills

Programming & Scripting: Java, Python, C, R, SQL, HTML, CSS, JavaScript, React, Node.js, LaTeX, MATLAB
Data Science & Machine Learning: Jupyter Notebooks, NumPy, Pandas, Scikit-learn, PyTorch, CNNs, ONNX
Software Development Tools: Git/GitHub, Linux/Unix, Bash, VS Code, Figma, Microsoft Office Suite

Professional Experience

Research Intern | *UW-Madison Math Department* *Madison, WI*
Jan 2025 – Aug 2025

- Conducted research under Professor Sam Stechmann and postdoc Thu Le at UW–Madison, applying **neural networks** to accelerate numerical methods for solving Partial Differential Equations (PDEs).
- Designed and trained feedforward networks, convolutional neural networks (**CNNs**), and **ResNets** in **PyTorch** with spectral element data generated in **MATLAB**, tuning polynomial degrees and hyperparameters to improve accuracy and stability.
- Exported trained models to **ONNX** for integration with PDE solvers, reducing solution error from **order** 10^{-3} **to** 10^{-4} without additional training costs and contributing toward scalable, efficient solvers.

Student IT Intern | *College of Agricultural and Life Sciences IT* *Madison, WI*
Sep 2025 – Present

- Provided IT support for **40+ labs**, resolving hardware, software, and network issues through rapid **troubleshooting**.
- Performed system setup, imaging, configuration, and maintenance across lab workstations in **Mac and Windows environments**.
- Handled support requests through a **ticketing system** and assisted with **asset management**, including tracking and maintaining lab hardware inventories.

Undergraduate Teaching Assistant | *Department of Computer Science & UW–Math Learning Center* *Madison, WI*
Sep 2024 – Present

- Provided academic support to **200+ students** in **Introduction to Computer Systems** (C programming, memory, Assembly Language, debugging), with additional tutoring in Precalculus and Calculus.
- Supported programming assignments, quizzes, and exams through one-on-one and small-group instruction in an inclusive learning environment.

Projects

SoundScape | *React Native (Expo), OpenAI API, Spotify API, Mapbox*

- Developed an AI-powered mobile navigation app that generates **context-aware Spotify playlists** from the user's account using OpenAI based on mood, traffic, weather, and trip duration.
- Integrated Mapbox, Google Places and OpenWeather API along with voice-based mood detection, including a demo mode for simulated real-time navigation.

CompileMyDegree | *React, Node.js, API*

- Developed an interactive degree-planning website using **React.js**, **Node.js**, and **Express**, featuring a dynamic catalog of **40+ CS courses** with detailed descriptions and prerequisite mappings through a custom **REST API**.
- Implemented a smart scheduling algorithm that auto-generates multi-semester course plans based on user inputs like semesters left, desired credit load, and completed classes while enforcing dependency rules.

Involvement

Secretary | *DotData – Data Science Club* *University of Wisconsin–Madison*
May 2025 – Present

- Manage weekly newsletter to **600+ members** and coordinate logistics for workshops, guest talks, and events as the primary point of contact for the club.
- Oversee the club's finances and website, lead weekly executive board meetings, and organize the annual **MadData hackathon** with **300+ participants** and campus-wide outreach.

Mentoring Chair | *WACM – Women in Computing* *University of Wisconsin–Madison*
Sep 2025 – Present