Arvind Marella

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School Address: 500 Lincoln Dr, Madison, WI 53706

EDUCATION

University of Wisconsin-Madison — Madison, WI
- *Bachelor of Science in Computer Science and Data Science, August 2024 – Present*
- *Honors:* College of Letters & Science Dean's List
- *Relevant Courses:* CS 300, CS 400, CS 354, ECE 252, MATH 240, STAT 240, LIS 351, MSE 401

Dublin High School — Dublin, CA
- *Relevant Courses:* AP Calculus AB, AP Calculus BC, AP Statistics, AP Computer Science A, AP Chemistry, AP Macroeconomics, AP US Government & Politics, AP Environmental Science
- Member of National Honor Society | Member of DHS Engineering and Design Academy (DEDA)

PROJECT EXPERIENCE

Vantage Robotics, *Intern;* San Leandro, CA — June 2025 – Present
- Engineered an AI-driven inventory management system incorporating facial recognition for employee verification and parts scanning.
- Designed and developed automated quality control tests for the Trace nano UAV to ensure high product reliability and manufacturing consistency.
- Performed quality control inspections on fuselages, gimbals, and rotor sets, conducted final assembly, and executed flight tests for Vesper ISR drone units to verify peak operational performance and compliance with rigorous standards.

Delphi Prediction Platform, *Co-Founder and COO;* Madison, WI — January 2025 – Present
- Co-founded Delphi, a skill-based prediction platform combining gamified polls, real-time event forecasting, and AI-driven insights to engage users across sports and global topics.
- Lead the beta launch by introducing events, PvP matchups, and a leaderboard rewards system to enhance community engagement.

Design Interactive, *UX Designer;* Madison, WI — February 2025 – May 2025
- Collaborated with Spectacle Health and led the design of an innovative AI broker interface aimed at improving access to and navigation of healthcare plans for customers.
- Conducted user research, developed interface wireframes, and proposed conversational AI features to enhance user experience and streamline plan recommendations.

Informatics Skunkworks (ML4ER), *Machine Learning Engineer;* Madison, WI — August 2024 – December 2024
- Designed and trained machine learning models to address real-world challenges in science and engineering, including financial forecasting and environmental modeling.
- Collaborated with a team to develop innovative algorithms and refine existing methodologies to improve model performance.

Stock Index Predictor, *Developer;* Madison, WI — October 2024 - Present
- Developed a machine learning model to predict S&P 500 trends through data preprocessing, feature engineering, and algorithm optimization.

Digital Psychologist, *Team Lead;* Dublin, CA — January 2024 - May 2024
- Developed a machine learning model to provide personalized mental health recommendations based on psychological theories, addressing mental health challenges through accessible and confidential AI-driven support, culminating in a pending provisional patent

WORK EXPERIENCE

Open-Source Program Office (OSPO), *Data Science Intern,* Madison, WI — February 2025 – May 2025
- Simulated and compared pore-flow and solution-diffusion models to study molecular transport through polymer membranes.
- Created dynamic visualizations using VMD and Ovito to illustrate time-resolved molecular flow and validate model behavior.

Sky Martial Arts, *Teacher-Assistant,* Dublin, CA — January 2019 - February 2023
- Supported class instruction while providing personalized feedback to students, promoting skill development, discipline, and fitness.

Bay Area Chapter Disaster Relief - SEWA International, *Volunteer,* Milpitas, CA — October 2020 - May 2022
- Coordinated food distribution events in underserved communities and led disaster relief efforts for wildfire-affected areas, including assembling emergency kits and refurbishing laptops for educational use.

HONORS AND AWARDS

- Taekwondo – Kukkiwon-certified 3rd Degree Black Belt - May 14, 2022
- Taekwondo – 2 Gold Presidential Volunteer Service Award of 2019 and 2020 - January 25, 2020; January 5, 2021
- Taekwondo - Silver Presidential Volunteer Service Award of 2021 - January 5, 2022
- Violin - ABRSM Grade 6 Violin Practical, Grade 5 Music Theory - March 7, 2022; July 28, 2021
- Cricket - Represented USA for Roger Harper Trophy, Guyana, South America - August 2022
- Cricket - Competed in USA U17 West Zonal - August 2023
- SEWA - Bronze Presidential Volunteer Service Award of 2022 - January 16, 2023

SKILLS

- *Programming Languages:* Java, Python, HTML, CSS, JavaScript, R, Git
- *Tools and Technologies:* Autodesk Fusion 360, NetLogo, NI Multisim, VMD, Ovito, Figma, Weaviate
- *Languages:* English (Fluent), Telugu (Fluent), Spanish (Competent)