Dev Paul

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EDUCATION

University of Wisconsin-Madison ***Sep 2022 – May 2026***

- *Bachelor of Science in Computer Science and Data Science and Minor in Entrepreneurship* *GPA: 3.6*

QUALIFICATIONS

- **Coding/Scripting Languages:** Java, Python, R, SQL, C, C#, HTML, CSS, JavaScript, Bash
- **Tools/Technologies:** Docker, Git, OpenCV, PyTorch, Node.js, TensorFlow, Streamlit, Scikit-learn, React, Unity, AWS
- **Relevant Coursework:** Data Structures & Algorithms, Data Modeling, Discrete Math, Linear Algebra, AI, Machine Organization, Database Design & Management, Virtual Reality

PROFESSIONAL EXPERIENCE

Paradigm Artificial Intelligence Inc ***Mar 2025 – Present***

Machine Learning Intern

- Developed and maintained a health tech web application integrating Bespoke AI for personalized healthcare insights, reducing manual processing time by 30%.
- Developed and managed a CI/CD pipeline for LLM integration. Engineered a Node.js wrapper for a Python-based PDF parser to decouple file upload and processing, significantly enhancing error handling and system reliability for automated medical report processing.

GeoDS Lab | *https://geography.wisc.edu/geods* ***Feb 2025 – Present***

Undergraduate Research Assistant

- Conducted data processing and spatial rezoning of FAF Zone-level food transportation data (132 zones, 17,424 inter-links) to county-level granularity across seven agricultural categories, improving estimation accuracy.
- Developed interactive visualizations and predictive models using Pydeck and Graph Neural Networks to analyze food transportation dynamics, enhance public accessibility, and generate robust multi-scale food flow estimations.

Center for Patient Partnerships | *https://patientpartnerships.wisc.edu* ***Mar 2024 – Mar 2025***

Administrative and IT Assistant

- Engineered a custom desktop application in Python using Tkinter and Openpyxl to automate payroll processing and streamline spreadsheet tasks. Included features such as funding string management and customizable report generation to improve financial accuracy and workflow efficiency.
- Maintained and updated the organization's website, ensuring consistent functionality, security, and performance while also providing IT support for various administrative functions.

Neotoma Paleoecology Database | *https://www.neotomadb.org* ***Sep 2024 – Jan 2025***

Research Assistant

- Developed a Python-based Flask dashboard for human-in-the-loop annotation to support data curation for the Neotoma Paleoecology Database, a global repository for ice age fossil records using PostgreSQL.
- Enhanced publication verification workflows using APIs (Neotoma and OpenAlex), improving scalability, data validation accuracy, and machine learning readiness.

PROJECTS AND INVOLVEMENT

Teeko AI Player

- Developed an intelligent AI for the Teeko board game using Python and the minimax algorithm, to generate legal moves and optimizing decision-making for both drop and move phases to ensure moves are completed within a 5-second time limit.

Automated Attendance System

- Developed an automated attendance system using Python, OpenCV, and Histogram of Oriented Gradients (HOG) for real-time face recognition, featuring facial encoding, recognition, and CSV-based logging, with enhanced accuracy through optimized image scaling and face matching techniques.