

# Debo Jyoti Paul

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## EDUCATION

UNIVERSITY OF WISCONSIN - MADISON (Dean's List: 2022-2023)

MADISON, WI

BACHELOR OF SCIENCE - COMPUTER SCIENCE AND DATA SCIENCE (CS.GPA: 3.75/4.00)

MAY 2026

- **Courses:** Research Statistics and Data Analysis, Discrete Math, Linear Algebra, Computer Programming & Engineering, Database Systems, Data Structures, Systems Architecture, Artificial Intelligence.

## RECENT WORK EXPERIENCE

Software Developer Intern (REMOTE) 4P MARKETING CONSULTANCY

Mar 2024 - Aug 2024

- Designed and built an **Android app** for monitoring and **data gathering** for over **4,000** daily users with Java and XML.
- Created pipelines to **gauge data collection** quality using geofencing, facial recognition, and pixel pattern detection.
- **Automated** data processing to eliminate production bottlenecks, and developed an **algorithm** with **95% accuracy** to process data using Google Vision and Python to process the data, and proposing an option to **reduce costs** by over **50%**.
- Deployed a script to map file directories, re-categorize files, avoid duplicate overwrites, and **generate detailed reports**.

ML Research Asst. (REMOTE) DATA ANALYSIS & INTELLIGENT SYSTEMS GROUP

Sep 2023 - May 2024

- Conducted literature reviews, **developed strategies** for meaningful output, and built a lightweight personality detection **model (97% acc.)**, using Kmeans, an MLP framework and Grid Search from Sklearn.
- Identified steps to **reduce errors by 8%** in prev. models, built a new model **~200x smaller, and 30% faster**.
- Redesigned the pipeline & made the model production ready with Python.

Technology Intern (REMOTE)

AMERICAN RED CROSS

Oct 2023 - Jan 2024

- Liaised with **13 senior** and regional managers worldwide to revamp the US fundraising **database, addressing their concerns**.
- Developed an internal tracking system for **9,000+ units** and **\$80M in assets** for about 100 regional managers.
- Implemented **3+ new features** and **reduced save/load times by 20%** using Python scripts and data processing libraries, ensuring compatibility and accessibility across various devices. Introduced a **standardized data entry guide**.
- **Led 2 product** creation projects, created additional visualizations, **synthesized legal documents**, and worked on mini-projects to synthesize data further, working together with **8 senior managers**.

## RECENT PROJECTS

- **DOLLY (8-2024)**. Developed an accessible & inclusive AI-powered email auto-completion feature using **Gemini**, for personalized real-time writing suggestions. Leveraged cross-encoder to analyze user writing style and context by ranking relevant past emails. Enabled context-aware completions triggered by subject and body, enhancing user productivity. JavaScript, Html/Css, Flask, Gmail.
- **DRUGS (5-2024)**. Designed an app and a simple ANN to recommend drugs by inferencing symptoms, scraped clinical figures from over **100,000 pages** to build a comprehensive database. The app empowers patients and caregivers to grasp their conditions and learn more about the medications they consume and prescribe. JavaScript, BeautifulSoup, React, MongoDB, Next, Tensorflow.
- **EDUHELP; MADDATA (2-2024)**. Developed an AI-driven accessible educational app featuring a context aware, memory based chatbot that summarizes texts based on classified human traits (**80% acc.**). Tailors educational content by making learning more efficient and engaging for users, especially those with diverse learning needs. HTML/CSS, Sklearn, Matplotlib, Flair, OpenAI.
- **HUNGRY HUSKIES; DUBHACKS (10-2023)**. Led the development of an app to track surplus food locations and notify students. Addressing the food waste problem and assisting students with food shortage. Flask, JavaScript, Twilio, SQL, Google Cloud.
- **FIN. LIT. COMPANION; HACKMIT(9-2023)**. Developed a financial literacy app that analyzes economic discussions, identifies trends, fetches relevant articles-trending, and visualizes market sentiments. Lama, Selenium, Pandas, Sklearn, JavaScript.

## ADDITIONAL INFORMATION

- **Languages:** Java, Python, JavaScript, AppleScript, Bash, R, SQL, HTML/CSS.
- **Frameworks & Tools:** React, Flask, Next.js, Pandas, Numpy, Scikit-learn, BeautifulSoup, Selenium, Power BI, Matplotlib, Pytorch, Tensorflow, Git, Adobe, Final Cut, Blender, CAD, Canva, Figma, MongoDB, Firebase, Microsoft Azure, Google Cloud, AWS, MacOS, Windows, Android, REST APIs.
- **Awards:** Scholars Summer Award (2024); MJLSP Hackathon Runner-Up (2024); CIRC Intl. Winners (2023); ...