Devagya Gupta

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Education

University of Wisconsin, Madison — **May 2026**
Bachelors of Science in Computer Science, Data Science and Entrepreneurship — *GPA: 3.6*
- **Coursework**: Big Data Systems, Data Structures and Algorithms, Introduction to AI, Machine Organization, Data Science Modeling, Database Management Systems, User Interfaces, Human Resource Management, Venture Creation

Skills

Languages: Python, Java, C, C++, R, Kotlin, JavaScript, HTML5, CSS3, Bash, SQL, Go, Rust
Software: PyTorch, OpenAI, Scikit-learn, Spark, Transformers, React, Android, MySQL, Git, Docker, Figma

Experience

Project Assistant – **UW Madison Dept. of Computer Sciences** — **Jun 2025 – Present**
- Refactored core system logic to enable per-lambda memory and CPU limits, improving resource isolation and stability across multi-tenant workloads.
- Integrated benchmarking tools (ReqBench, BilliBench) into the main CLI to streamline performance evaluation andreduce developer overhead.
- Implemented an automated disk management policy to evict stale packages, preventing storage exhaustion on worker nodes in high-churn environments.

Machine Learning Extern – **Outamation (via Extern)** — **Mar 2025 – May 2025**
- Achieved 90%+ text extraction accuracy from digital and scanned docs using PyMuPDF and Surya OCR.
- Deployed a Falcon-7B RAG system to query financial documents as a business intelligence tool for data retrieval.
- Boosting mortgage data extraction accuracy by 15% via Label Studio annotation and LLM fine-tuning.
- Built a Streamlit interface for document querying, model output visualization, and rapid testing.

Software Engineering Intern – **HEN Nozzles** — **Jun 2024 – Aug 2024**
- Built a Python + RS485 backend for precise motor control and real-time performance data capture.
- Developed an Android app in Java/Kotlin to remotely manage deck gun movement, velocity, and firing modes.
- Created a 3D model in Autodesk Tinkercad to test design flaws, code interactions, and manufacturing feasibility.

Machine Learning Intern – **Konsultera Solutions** — **Jun 2023 – Aug 2023**
- Built a RAG pipeline with LangChain, Python, & FAISS for document Q&A, reducing query latency by 35%.
- Fine-tuned the LLM using HuggingFace, SFT, and LoRA on custom datasets for domain specialization needs.
- Applied QLoRA 4-bit quantization, reducing model size by 50% and increasing deployment efficiency by 15%.
- Deployed the fine-tuned and quantized LLM on the Mystique AI platform (mystiqueai.com) for production.

Lead Student Software Engineer – **UW Madison College of Engineering** — **Sep 2023 – Present**
- Developed an automated semester scheduling system in Python using PuLP (MILP) to model complex constraints (availability, coverage, shifts, hours) for 10+ students, achieving a 90% reduction in manual effort.
- Engineered a Python pipeline using Pandas to automate cleaning, enrichment, and semester-wise aggregation of 3000 RT support tickets, enabling engagement pattern analysis.

Projects

Weather Data Service | *Python, gRPC, Cassandra, Spark, Docker*
- Built a fault-tolerant service for retrieving time-series weather data, featuring an optimized schema, automated metadata preprocessing, and scalable multi-container deployment for improved reliability.

Instructor-Sync | *Python, MongoDB, Google Looker Studio*
- Led the design and delivery of an instructor engagement hub, creating a full-stack data solution with a Python ETL pipeline, MongoDB, and a Looker Studio dashboard to unify scattered engagement records.

Leadership And Extracurricular

Director & Co-Founder – **Bucky Noh Dhol** — **Nov 2023 – Present**
- Co-founded and launched a large-scale competition, leading a cross-functional team of 30 individuals across finance, logistics, and marketing to execute the event.
- Secured over $45,000 for the competition and partnered with a charity to donate a portion of the event's profits.

Head of Events – **Indian Students Association** — **May 2023 – Present**
- Scaled it into the largest student club on campus by leading 50+ events with attendances of over 5,000 combined.
- Collaborated with 10+ campus groups to host large-scale events that highlighted diverse South Asian cultures across the university community.