Abhishek Dharmadhikari

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EDUCATION

Georgia Institute of Technology   Aug 2025 – May 2027
*Master of Science in Computer Science (MSCS); **Specialization: Machine Learning***
Relevant Coursework: *Machine Learning, Natural Language Processing, Data & Visual Analytics*

College of Engineering Pune (COEP), Pune   Aug 2019 – May 2023
*B.Tech in Computer Engineering; Honors in **Data Science**; **Institute Rank: 1/780; GPA: 9.81/10***   Link to Transcript
Relevant Coursework: *Operating Systems, Networking, Computer Organization, Data Structures & Algorithms, Deep Learning,*
Databases, Cloud Computing, Devops, Object-Oriented Programming, Linear Algebra, Calculus, Probability & Statistics

EXPERIENCE

Wells Fargo   Hyderabad, Telangana, India
Software Engineer   Aug 2023 – July 2025
- Led the development of the **Independent Price Verification (IPV)** tool in the India time, supporting **accurate pricing and valuation of financial portfolios** worth over **$200B**, using **Angular**, **Django**, **Python** (ETL).
- Developed a **python-based ETL pipeline** processing over **12M records daily** from **130+ sources**, including database extractions, APIs, FTP servers, and file reads.
- Optimized query performance by **66%** through the implementation of **database indexing and archival** process.
- Automated generation and validation of **50+ commodity control sheets** using Python, eliminating **250,000+ formula operations**, saving **8 hours** of effort and reducing processing time by **99.6%**.
- Awarded the **Team Spotlight Award** for reducing **75+** yearly incidents, improving overall system reliability by **46%**.

Multimodal Digital Media Analysis (MIDAS) Lab, IIIT Delhi   Remote
Research Intern   Jun 2023 – Dec 2024
- Evaluated the reasoning capabilities of 5 **Multimodal Large Language Models** in the geometry domain.
- Led a team of 3 to create **GEOVQA**, a high-quality Indian-context geometry benchmark dataset with **4K images**.
- Devised the **Mixture of Refinement Agents (MoRA)** framework to iteratively reduce reasoning errors in physics tasks, improving accuracy by up to **16%** on **SciEval** and **MMLU** for open-source LLMs(**LLaMA-3** and **Gemma-2**).

Citibank India   Remote
Technology Summer Analyst Intern   May 2022 – Jul 2022
- Proposed and migrated the UI of an in-house **Process Automation Tool** from **Thymeleaf** to **Angular**, used for productivity tracking and vendor resource management in the **Payments and Receivables unit.**

ISRO COEP Satellite Team Initiative (CSAT)   Pune, Maharashtra, India
Attitude Determination and Control Subsystem(ADCS) Contributor   Jan 2020 – Feb 2022
- Implemented the **TRIAD algorithm and an Unscented Kalman Filter** in C to determine satellite attitude and improve the accuracy of attitude estimation, respectively, with testing performed using real satellite data.

PROJECTS

Sustainabilty Benchmark Automation | *Python, Flask, Streamlit, Azure SDKs*   Mar 2024
- Spearheaded the design and deployment of a full-stack web solution on **Azure App Service** during a company-wide hackathon; led a team of 4 to automate **Environmental, Social, and Governance (ESG) pdf report analysis**.
- Engineered a **RAG pipeline** by integrating **Azure Form Recognizer** for pdf to text extraction, **Azure Search Index** for context retrieval, and **Azure OpenAI (GPT-4)** for Q&A on **100+ pages long ESG documents**.

⌨ **User-Threads - Operating Systems** | *C, Systems Programming, Coroutines, Bash*   May 2022
- Built a user-level multi-threading library in C, supporting 3 mapping models: **one-one, many-one, many-many.**
- Exposed APIs for thread lifecycle management, implemented synchronization primitives like spinlock and signal handlers for over **50+ signals**.
- Validated models using **race conditions** and achieved **80%** reduction in execution time for matrix multiplications.

⌨ **HTTP Server - Computer Networks** | *Python, Socket Programming, threading library, MDN Docs*   Nov 2021
- Developed a **multithreaded HTTP/1.1-compliant web server** in Python following **RFC 2616** standards.
- Implemented **5** HTTP methods (GET, POST, PUT, DELETE, HEAD), 15 status codes, 5 media types, multipart form data handling.
- Designed a customizable configuration file for server-side settings with **12+ configurations**(e.g., Keep-Alive, timeout).

TECHNICAL SKILLS

Programming Languages:	C, C++, Python, Java, JavaScript, TypeScript, HTML/CSS, Bash, SQL, PHP, Assembly
Databases:	MySQL, MongoDB, Microsoft SQL Server, Chroma, Azure Cosmos DB
Frameworks & Libraries:	ETL, Django, Flask, React, Node.js, Springboot, Angular, NumPy, TensorFlow, PyTorch
Developer Tools:	Git, Docker, AWS, TCP/IP, REST API, Kubernetes, Jenkins, Agile, SDLC, CI/CD, Linux

ACADEMIC ACHIEVEMENTS

- Awarded the **Gold Medal** for securing **Rank 1/780** as Institute and Computer Engineering Branch Topper.
- Received the **Best Performer in Mathematics Award** for scoring **perfect AA grades** in all 5 undergrad maths courses.
- Honored with the **Alumni Association Award** for being the Institute Topper in **Sophomore and Pre-Final** years among 780 students.