Gautam Sharma

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EDUCATION

Indian Institute of Technology Guwahati, India — Nov 2021 - May 2025
Bachelors of Technology in **Computer Science and Engineering** — GPA: 8.46/10.0
Bachelors of Technology (Minor) in **Data Science and Artificial Intelligence**

EXPERIENCE

UiPath - Docs AI Team — July 2025 - August 2025
Software Engineer I — Bengaluru, India
- Created a **scalable content provider service** to fetch documentation content from various sources, using **factory design pattern**
- Increased the **number of eligible authors to publish content ten-fold**, **saving** $100,000+/**year for the company in licensing**
- **Abstracted away** the business logic of handling various sources to the backend via **exposing a single API on the frontend**

UiPath - Apps Team — May 2024 - July 2024
Software Engineer Intern, Internship — Bengaluru, India
- Implemented the **end-to-end feature** of **Copy and Paste of Rules** component in **UiPath Apps** from scratch in **MEAN Stack**
- Completed **proof of concept**, designed the **High and Low-level design documents**, did **unit and end-to-end testing**
- Merged code with coverage of **90+%**, **solved six scenarios** in which the feature can be used, received **Full Time Offer** to join

Zhang Lab, Purdue University — April 2025 - August 2025
Research Internship, Guide: Prof. Yongle Zhang — Indiana, USA (remote)
- Working on the concept of **Software Flexibility**, aiding in the debugging of in-production cloud systems
- Developed the concept of **Knob Injection**, which provides an easy way to alter a program's path during run-time

Pei Lab, University of Massachusetts Boston — April 2025 - August 2025
Research Internship, Guide: Prof. Shichao Pei — Massachusetts, USA (remote)
- Working on the concept of **backdoor attacks** on LLMs, particularly **Retrieval Augmentation Generation** Systems
- Proposed **model editing** as a replacement of **model fine-tuning** as a method to efficiently recover documents from RAG systems

AMaL Lab, IIT Guwahati — July 2024 - Present
Bachelor Thesis Project, Guide: Prof. Ashish Anand — Guwahati, India
- **Proposed a majority voting algorithm** using LLMs for the problem of **generating fine NER grain tags from raw sentences**
- Worked on Data Programming for fine-grained NER for Indic languages using **SpaCy**, **Skweak** and **Snorkel** NLP frameworks
- Studied **LLMs** such as **Llama**, **ChatGPT**, **Gemini** in **Few Shot setting**, and **various prompt settings** for the above problem

PROJECTS

**Quantum Powered Business Rule Engine ** — Dec 2023
Group Project, **Gold Medal, 12th Inter IIT Tech Meet**, IIT Madras — bit.ly/3tCRDCf
- Built a business rule engine using **Quantum Computing**, employing DWave's **dwave-system** which makes the process of re-accommodating passengers affected by flight delays/cancellation **easier and faster over classical methods**
- Solved the famous **Passenger Recovery Problem** by formulating a mixed integer programme
- Used **Prune and Search**, **Flow Network Algorithms**, and **Multithreading**, used **Dynamic Programming** to speed up the process

**DDoc: Blockchain-based secure document ecosystem ** — Jan - Feb 2024
Group Project, Kriti 2024, IIT Guwahati — bit.ly/3SHtfYL
- Created a **decentralized ecosystem** to **issue**, **receive** and **verify** documents for organizations and individuals
- Used **digital signatures** to prevent tampering of documents, and also implemented **Proof of Existence** for the documents
- Used **Solidity**, and **Truffle** to deploy the smart contract on **Sepolia TestNet**, hosted APIs through **Python**, developed frontend using **Flutter**, used **IPFS** for **decentralized storage** and also made a **custom trained** chatbot to support the application

Other Projects
- **Trading System :** Trading system to **place**, **modify**, and **cancel orders**, **viewing current positions**, **subscribing to symbols**
- **Restricted Cred :** Novel algorithm for **optimal use of virtual machines for high performance on cloud architectures**
- **DB in C : Miniature Database Management System** inspired by SQL supporting addition and selection of entries

ACHIEVEMENTS

JEE Advanced 2021	Secured **AIR 530** among 0.15 million students across the country	2021
JEE Mains 2021	Secured **AIR 359** among 0.94 million students across the country	2021
KVPY SX 2021	Secured **AIR 397** and the KVPY scholarship given to **top 2000** students across the country	2021
APAC Terminal	Secured **Rank 4** at **Asia-Pacific Terminal** by **Citadel Securities** and **Correlation One**	2023
Abstractify-2023, IIT Delhi	Secured **Rank 3** among participants from top 8 IITs in the **Quant Winter Trading School**	2023
ICPC Mathura Prelims 2023	Achieved **AIR 163** among 1000+ teams	2023
Codeforces (max rating 1727)	Codeforces Round 881: Secured **Global Rank 90** among 28,000+ participants	2024

TECHNICAL SKILLS

- **Programming**: C, C++, Solidity, Java, Typescript, Python, Dart, JavaScript
- **Optimization frameworks**: Gurobi, OR Tools
- **Database Management**: MongoDB, SQL, PostgreSQL*
- **Miscellaneous**: Qiskit, DWave, LaTeX, Markdown, Bash*

KEY COURSES

Computer Science: Data Structures & Algorithms, Machine Learning, Computer Architecture & Organization, Database Management Systems, Computer Networks, Operating Systems, Deep Learning, High Performance Computing, Artificial Intelligence
Mathematics: Linear Algebra, Number Theory, Probability & Random Processes, Discrete Mathematics

POSITIONS OF RESPONSIBILITY

- **Competitive Programming Head, Coding Club, IIT Guwahati**
  - Organized **India's first Inter College Camp for ICPC (IICPC)**, delivering lectures and contests to **6,000+** students