Danish Javed

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ACADEMIC DETAILS

B.Tech Computer Science & Engineering **CGPA: 8.469**
Indian Institute of Technology Delhi 2020-2024

WORK EXPERIENCE

Software Engineer, Silence Laboratories *Mar '25 - Present*
Python, Rust, AI Agents, A2A, MCP, 10x Programming

- Contributed over 25000+ lines of working Python code; learnt the meaning of ownership & 10x programming
- Single-handedly researched A2A protocol released by Google and made additions on it to support secure collaboration. Using it, made PSI and Dark Pools (privacy preserving trading) demos featuring multiple agents
- As other side projects, built full-stack demos (frontend and api-integrated backend) end-to-end to showcase various products of Silence Laboratories, especially inside Silent Compute. Also wrote code for enrichment and completion of excel sheets containing potential leads of Silence using Lusha, Apollo and AnyMailFinder API
- Engineered robust Python FFI bindings for Rust cryptographic libraries being used in the multi-agent systems
- Made crewai and n8n workflows integrating the multi-agent communication with A2A protocol & Rust functions
- Performed thorough code reviews of teammates, collaborated across engineering and product teams, wrote clean and efficient code, and refactored multiple, critical deep-tech code segments to improve long-term maintainability
- Hackathon submissions:
  - Worked in a team of 3 to deliver a working product in the G20 TechSprint 2025 hosted in South Africa, winning $30,000 as first prize for the problem statement - consumer-consented and secure data portability
  - Architected an enterprise-grade MCP server implementing secure Private Set Intersection and submitted it in the NANDA MIT hackathon

Research Intern, Adobe Research, India [Demo] *Summer '23*
Python, NLP, Data Scraping, Socratic models, Multi-modal transformers

- Built an intelligent AI orchestration system for automated document enhancement, which combined content retrieval and integration from related heterogeneous external documents, reducing manual effort by 90%
- Developed and fine-tuned a custom BERT classifier on 8K+ samples for image-text matching and image-inclusion decisions in document, achieving 80.4% accuracy and outperforming GPT-3.5 by 58% (51% baseline)
- Engineered a comprehensive multi-modal dataset by implementing large-scale Wikipedia scraping infrastructure, creating 10K+ high-quality image-text pairs with rich metadata annotations in structured XML format
- Implemented robust evaluation pipeline using DocNLI framework for text entailment assessment and created a production-ready GUI application in PyQt5 for demonstration

RELEVANT COURSES

Machine Learning for Computer Networks, Computer Graphics, Numerical Algorithms, Advanced Algorithms, Computer Networks, Artificial Intelligence, Operating Systems, Computer Architecture, Parallel & Distributed Programming, Discrete Mathematics, Prob. & Stochastic Processes, Linear Algebra, Linear Optimization

Online Courses

Neural Networks and Deep Learning, Improving Deep Neural Networks: Tuning, Regularization and Optimization, AWS Cloud Technical Essentials, Migrating to the AWS Cloud, Fundamentals of AI Agents Using RAG and LangChain, Get started with Redis, Redis for Python Developers, Fundamentals of Backend Engineering

TECHNICAL SKILLS

- **Programming Languages**: Python, C++, Rust, JavaScript
- **AI/ML & Data Science**: PyTorch, Tensorflow, Keras, OpenCV, CUDA, LLMs
- **Systems & Infrastructure**: Docker, Redis, AWS, Git, REST APIs, MERN Stack
- **Leadership & Soft Skills**: Cross-functional collaboration, End-to-end ownership, Communication

HONORS AND ACHIEVEMENTS

- Secured **All India Rank 69** in JEE Advanced 2020 among 150K+ candidates, placing in top 0.03% nationally
- Secured **99.82 percentile** in CAT 2024 among 300K+ candidates, placing in the top 0.2% nationally
- **National-level Olympiad Qualifier**: Successfully cleared prestigious olympiads including **RMO, NSEA, NSEC and KVPY SA & SX**
- **International Recognition**: Earned **bronze medal** at **OPhO 2020** finishing 18th across 340 global teams of high school and UG students. This competition is sponsored by top firms like **Jane Street, Citadel, etc.** and is conducted by **PhysOly**

PROGRAMMING ACHIEVEMENTS

- **Algorush**: Stood **top 15** nationally in a competitive programming contest organised by **IISc, Bangalore**
- **Codeforces**: Solved **250+** algorithmic problems on **Codeforces** with **peak rating of 1637 (youwoo)**, demonstrating strong problem-solving and optimization skills
- **Leetcode**: Completed **300+** coding challenges on **Leetcode (lemonwatermelon)**, covering data structures, dynamic programming, and system design

RELEVANT PROJECTS

Advanced Ray Tracing Engine
Computer Graphics, Prof. Rahul Narain - C++

- Built a high-performance ray tracing engine from scratch using OpenGL and C++, implementing advanced keyframing algorithms with real-time cloth physics simulation and dynamic obstacle collision detection. Achieved photorealistic rendering with SDL2 featuring complex affine transformations, soft shadows, and caustics

High-Performance Cache Simulator
Computer Architecture, Prof. Rijurekha Sen - C++

- Architected a sophisticated 2-level cache hierarchy simulator (L1/L2) in C++ with set-associative mapping, LRU replacement policy and Write-Back-Write-Allocate protocols for dirty block management. Designed comprehensive performance analytics tracking reads, writes, and miss rates with cycle-accurate timing simulation

PSP Network
Computer Networks, Prof. Abhijnan Chakraborty - Python

- Created a PSP network (similar to BitTorrent) that distributes the requested file to all peers, beginning with some file chunk distribution among them. Implemented both TCP and UDP connection networks between servers and clients, guaranteeing adequate packet loss management as well as parallel processing via multi-threading.simulation

Pacman-like IITD Campus Multiplayer Game
Design Practices, Prof. Rijurekha Sen - C++

- Created an interactive, two-player game from the ground up in C++ using SDL to manage IO and render visuals and animation. By limiting memory utilisation and data transfer, effective socketing has been implemented to enable fluid gameplay via wifi.