Mayank Singh Chauhan

Bachelors and Masters
Computer Science and Engineering
Indian Institute of Technology, Delhi

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Year	Degree	Institute	CGPA/Percentage
2016-2021	B.Tech and M.Tech in Computer Science	Indian Institute of Technology Delhi	9.34/10

SCHOLASTIC ACHIEVEMENTS

- **S.N. Bose Scholarship 2019**: Recognized as a distinguished student to research in premier institutions of USA.
- **Joint Entrance Examination (JEE) Advanced Rank**: 184 out of 1.5 lakh candidates.
- **Joint Entrance Examination (JEE) Mains Rank**: 186 out of 1.3 million candidates.
- **Kishore Vaigyanik Protsahan Yojna**: AIR 289.
- **National Science Exam in Physics**: National top 1%, qualified for India National Physics Oympiad 2016.
- **National Science Exam in Chemistry**: State top 1%, qualified for India National Chemistry Oympiad 2016.
- **IIT Delhi Semester Merit Award**: Among top 7% of all students.

WORK EXPERIENCE

Co-founder / CTO
CtrlB   *2023 -*

- Gained deep expertise in building **scalable systems from scratch**, driving growth from **0 to 1** and **1 to 10**.
- Secured **$300k** in funding to help companies **debug production issues** and **slash observability costs by up to 80%**.
- Tackled diverse technical challenges: **infra, cloud costs, scaling, and strategic tech optimization** for various scenarios.
- Directed and motivated a **high-performing team of 6 engineers** ensuring seamless collaboration and project success.
- Built a **10x cheaper Elasticsearch alternative** with a MPP C++ engine, storing data on S3 with sub-second query latency.
- Revolutionized debugging by building a **super debugger**, to **interpret data in arbitrary variables** during runtime.
- Integrated **LLMs** and **intelligent static analysis** to extract pertinent AST to add **natural language querying** in our debugger.
- Engineered **SaaS**: Go backend, JavaScript IDE plugin, and WebSocket optimization for **scalability under heavy traffic**.

Associate
Goldman Sachs   *2021 - 2023*

- Instrumental in developing **ETL frameworks** which teams in GS trading system depended on for efficiency and accuracy.
- Designed and implemented a **high-performance Java publisher architecture**, facilitating low-latency algorithmic trading.
- Leveraged **Kafka** for real-time **restricted trading list uploads**, fortifying compliance in high-stakes trading scenarios.
- Achieved rapid career growth, **promoted to Associate** in record one-year, showcasing outstanding skills and dedication.

NLP Researcher
Sybill.ai   *2020 - 2021*

- Spearheaded the NLP research in very **early stages of startup** which aims to add **emotional intelligence** to video calls.
- Trained **deep learning models** to extract action items, pain points and other important **trackers from call transcripts**.
- Finetuned **pre-trained language models** for the task of **multi natural language inference** to handle oov text in production.
- Deployed models to **segment** call transcripts based on **topic of discussion** using **Tensorflow's universal language encoder**.
- Formulated algorithms which build upon above signals and **extract questions and answers** exchanged during the call.

PUBLICATIONS

Knowledge Base Completion and post-hoc Explanations   **Prof. Mausam and Prof. Parag**
Thesis   *August 2019 - May 2021*

- **OxKBC: Outcome Explanation for Factorization Based Knowledge Base Completion**, accepted in **AKBC 2020**.
- Orchestrated a system to generate **post-hoc explanations** for predictions from factorization based KBC models.
- Achieved **state of the art** performance on standard dataset **FB15k-237** as well as a novel open world dataset - **OLPBENCH**.

Computer Networks and Systems Research   **Prof. Ravi Netravali**
UCLA summer research   *May 2019 - July 2019*

- **Fawkes: Faster Mobile Page Loads via App-Inspired Static Templating**, accepted in **NSDI 2020**.
- Revolutionize web page load process by caching static content and requesting dynamic details as patches.

Deep Learning on Embedded Devices   **Prof. Rijurekha Sen**
IITD summer research   *May 2018 - July 2018*

- **Embedded CNN based Vehicle Classification and Counting in Non-Laned Road Traffic**, **ICTD 2019**, **lead** author.
- Ran object detection models on various embedded devices, analyzed their accuracy, latency and energy numbers.
- This project was awarded **Summer Undergraduate Research Award 2018**.

COURSES

Artificial Intelligence, Machine Learning, Cryptography, Design of Algorithms, Computer Networks, Game Theory, Operating Systems, Probability and Stochastic Processes, Statistics, Distributed Computing, Microeconomics, Linear Algebra