Mridul **Gupta**

SOFTWARE ENGINEER · COMPUTER SCIENCE AND ENGINEERING MAJOR

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"Focused backend engineer with expertise in micro-services architecture, distributed systems and system design. Can work well with teams and have experience owning end-to-end deliverables individually. Currently working as a Software Engineer for People Experience at Amazon, building next-generation workforce management products"

Everyday Tasks Include

PRODUCT & BUSINESS

- Product requirement understanding and end-to-end solution design, development, and delivery.
- Support on production issues, following SLA guidelines.

TECHNICAL

- Low level system design and implementation.
- Developing REST APIs, worker modules, managing/developing queuing and logging systems.
- Automation tasks like deployment scripts, database migration scripts, monitoring and alerting systems, etc.

MANAGEMENT

- Mentor junior engineers.
- Code reviews and TDD.
- Conduct interview rounds for potential hires.

Work Experience

Amazon
Toronto, Canada

SOFTWARE ENGINEER
Jan. 2023 - present

- Championed migration of punch data from 3P Time system to 1P solution using phased rollout strategy (3 regions → global), reducing licensing costs by **$220K/month** while maintaining 99.95% SLA during transition
- Reduced 3P dependencies by 40 automations saving **($500K/yr)** while maintaining **99.3% accuracy** through serverless architecture and reducing **160 FTE** effort
- Migrated services to JDK17 ahead of EOL deadlines, implementing zero-downtime deployment strategies for high-availability systems

Zeta Suite, Directi
Bengaluru, India

SOFTWARE ENGINEER - CIPHER
Jul. 2021 - Dec. 2022

- Build and optimized Zeta's entire security infrastructure, from Payment Security to Identity and Access Management
- Piloted initiatives to ensure end-to-end GDPR Compliance.
- Led an org-wide architectural change for an important security feature which prevents broken logout experiences.
- Implemented various features and platform enhancements for Cipher, notably a pub-sub "Logout All" feature and Time-based OTP Mechanism
- Tech used: **Java/Spring**, **Kafka**, **PostgreSQL**, **AWS**, **Kubernetes**

Airtel X Labs
Gurugram, India

SOFTWARE ENGINEER - DIGITAL STORE AND AIRTEL IQ
Jun. 2019 - Jul. 2021

- Worked to build an intelligent micro-services layer to orchestrate bundle orders with rules around eligibility, payments, discounts and billing.
- Built a reconnaissance engine to manage subscription validity basis eligibility, directly **saving 10% reselling cost** every month in the process.
- Deployed a centralized monitoring environment (**Grafana**, **InfluxDB**) which gather system metrics as well as API run-time metrics.
- Implemented several API micro-services in **Java** to manage client workflows for Airtel IQ, which presently clocks **over 100 million** daily requests.

The MathWorks Inc.
Bengaluru, India

SOFTWARE ENGINEER INTERN
May 2018 - Jul. 2018

- Iterated multiple **Perl** prototypes to empower developers in automating cross-platform prequalification tests for upcoming **MATLAB** SDK versions and toolboxes
- Participated in daily meetings to grasp P1 issues and shadowed full-time engineers during their work.
- Received recognition for discovering the most exploits among interns during a bug bash prior to the MATLAB R2018b release.

Education

IIIT (Indraprastha Institute of Information Technology)
New Delhi, India

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING

- Teaching assistant for **Linear Algebra** and **Introduction to Programming**

Research & Projects

Cloning Machine Intelligence
New Delhi, India

B.TECH THESIS UNDER THE GUIDANCE OF DR. DEBARKA SENGUPTA

- Dedicated to the exploration of intelligence hacking in machine learning models.
- Building data-less models based on classification boundary estimation
- Manuscript submitted to IEEE Access for publication. Thesis Poster

Trimming the Fat
New Delhi, India

RESEARCH COURSE PROJECT WITH DR. RAJIV RATN SHAH

- Deep Learning Based in Videos. Report Slides
- Platform to analyze a video file or feed and allow the user to search for objects in it.
- Extended to recognize object color and specific people in the video
- Application built in **Flask** uses the YOLO model trained with the MS-COCO dataset to detect various objects in the image.

Everybody Dance Now
New Delhi, India

RESEARCH COURSE PROJECT WITH DR. SAKET ANAND

- Implemented "do as I do" Motion Transfer using Generative Adversarial Networks (GANs)
- Work involved video-to-video translation using pose as an intermediate representation.

Information Fusion of Location-based Services
New Delhi, India

INDEPENDENT RESEARCH PROJECT WITH DR. PONNURANGAM KUMARAGURU AND DR. ANKITA LIKHYANI, IBM RESEARCH

Orchestrated a long-term crawl on location-based online social networks (Foursquare, Uber, Yelp, Twitter) to generate user knowledge graphs.

Honors & Awards

2021	**Best Team Award, Q4 2020-21**, Digital Enterprise Division, Airtel X Labs	*Gurugram, India*
2020	**Best Rookie Award, Q2 2020-21**, Digital Enterprise Division, Airtel X Labs	*Gurugram, India*
2020	**Best Team Award, Q1 2020-21**, Digital Enterprise Division, Airtel X Labs	*Gurugram, India*
2019	**Best Rookie Award, Q2 2019-20**, Digital Enterprise Division, Airtel X Labs	*Gurugram, India*
2017	**1st place, Technical Quiz**, Research Showcase, IIIT Delhi	*New Delhi, India*
2017	**7th place, Capture-the-Flag Contest**, Facebook DevC	*New Delhi, India*
2014	**Ignited Mind and Overall Proficiency Award**, Delhi Private School	*Dubai, UAE*
2013	**1st Place**, S P Jain Brain Triathlon UAE	*Dubai, UAE*

Volunteer Experience

Be My Eyes
Virtual

VOLUNTEER
June. 2021 - present

- Devoting part of my time to solve real world problems for blind and sight impaired people around the world.

Indian Social Responsibility Network
New Delhi, India

SUMMER TRAINEE VOLUNTEER
May. 2019 - Jun. 2019

- Encourage NGOs to participate and facilitate a smooth onboarding on BSE Sammaan, a homegrown initiative to matchmake companies to NGOs for their Corporate Social Responsibility (CSR) initiatives.
- Develop media content on themes based on CSR field reports.

Indraprastha Institute of Information Technology
New Delhi, India

SECRETARY, STUDENT SENATE
Apr. 2017 - May. 2018

Served as Secretary of The Student Senate, an elected body which serves as a representative for undergraduate and postgraduate students. at IIIT-Delhi with the following objectives.

- Participated and served as a representative of the students in Academic Policy Making.
- Conducted meetings with the present students regarding grievances and discussion on current academic affairs.
- Organized growth programs involving students and alumni, including student counseling, higher education, etc.

COORDINATOR, THE 65TH SQUARE
Sept. 2015 - Apr. 2019

The 65th Square is the Chess Club of IIIT-Delhi.

- Organized the college's annual Chess Tournament three years in a row.
- Participation - 500+ school/college students and 50+ FIDE Rated players.
- Organized 50+ chess tutorials and practice matches for 75+ students.