Kunal Joshi

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Education

New York University - Courant Institute of Mathematical Sciences — **Sep 2021 – May 2023**
Master of Science in Computer Science; GPA: **3.7/4.0**. — New York City, USA

- Coursework: Big Data ML Systems, Distributed Systems, Cryptocurrencies, Applied Cryptography, Systematic Trading
- Teaching Assistant for Applied Cryptography (Spring '22)

Manipal Institute of Technology — **Sep 2016 – July 2020**
Bachelor of Technology in Computer Science; Minor in Computational Mathematics; GPA: **8.7/10.0**. — Manipal, India

- Coursework: Data Structures, Algorithms, Networks, Parallel Computing, Distributed Systems, Linear Algebra, Time Series Analysis

Experience

ModernLoop — **November 2023 – Present**
Software Engineer — Remote, India

- Lead the development of the Scheduling Queues feature which is one of the most used features and helped retain high revenue customers. Used Java, gRPC and GraphQL.
- Worked on major improvements to the core scheduling algorithm such as selecting preferred interviewers along with performance optimization.
- Built integrations with major ATSes such Gem, Workday and SmartRecruiters, opening up high revenue customers bringing in over $2M in revenue.
- Worked on efficiency improvements for internal and external REST APIs reducing call time to 10% of original call times.

Walmart Global Tech — **May 2022 – Aug 2022**
Software Engineer III Intern — Sunnyvale, USA

- Built backend REST APIs for collecting user experience feedback for the Walmart GoLocal client website using Java SpringBoot and Kafka.
- Created frontend components for aforementioned feedback feature in Node.js and React working alongside UX team.
- Created a Kibana dashboard using Elasticsearch to consume feedback data and provide analytics.
- The feature is used by millions of users monthly and informs product team with valuable usage data.

National Instruments — **July 2020 – June 2021**
Software Engineer — Bangalore, India

- Fixed multiple bugs and added features in LabVIEW modules and tool-kits for Control Design, Simulation, Mathscript, VI Analyzer, Digital Signal Processing. The software was a major part of test and validation flows of thousands of customers globally.
- Created internal tooling which allowed for auto setup of VMs using Python. Used across multiple teams for automated tasks across org. It brought time savings of over 100 daily developer hours.
- Owned migration of team's Build and Test pipelines from internal tools to Azure DevOps. Successfully completed migration pre-2021 release schedule and reduced pipeline time by over 50%.
- Responsible for mentoring 2 summer interns and participated in intern recruitment efforts.

Samsung Research Institute — **Jan 2020 – June 2020**
Software Engineer Intern — Bangalore, India

- Involved in the development of MAC protocol for 5G (mmWave) SmallCell over the Qualcomm FSM100XX platform. This SmallCell is part of 5G deployments of various telecom operators globally reaching almost 100 million customers.
- Worked on C-based framework for testing various features of the MAC scheduler.
- Successfully overhauled the Unit Test framework from the Macro Cell project to SmallCell team requirements.

praktice.ai — **May 2019 – July 2019**
Software Engineer Intern — Bangalore, India

- Automated the creation and delivery of weekly reports to multiple clients using AWS Lambda, S3, RDS, DynamoDB and Google Charts API. This saved over 20 hours of weekly developer time. Service also generated on-demand reports.
- Added features to the existing AI chat-bot which would allow medical professionals to take over. Became a major selling point of the service.
- Worked on automation of various data collection tasks using Selenium and BeautifulSoup and fixed bugs in the main product utilizing AWS Cloudwatch.

Skills

Programming: Java, Python, Javascript, SQL, GraphQL, gRPC, Protocol Buffers
Technologies: AWS (Lambda, S3, RDS, DynamoDB), CI/CD Pipelines, Redis, Kafka, SQS, Bash, Git, Docker, ElasticSearch

Projects & Research

Practical Byzantine Fault Tolerance in Elixir | *Elixir, Erlang* — **2022**

- Implemented the PBFT consensus algorithm in a partially synchronous network simulation.

Cross-Domain Shopping, Stock Trend and Consumer Review Analysis | *Hadoop, Hive, Spark, Java, Python, SQL, Tableau* — **2022**

- Analyzed relationships between stock prices, stock news, and users' e-commerce behavior.
- Used Big Data tools to study review distribution over time and examine patterns between attributes such as upvotes, creation time, and sentiment.