KUNAL KASHYAP

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EDUCATION

New York University, Tandon School of Engineering, New York   *Expected* May 2023
Master of Science in Computer Engineering
Coursework: Data Structures & Algorithms, Machine Learning, Deep Learning, ML for Cyber Security, Network Security

Delhi Technological University, New Delhi, India   May 2021
Bachelor of Technology in Electronics and Communication Engineering
Coursework: Operating Systems, Internet & Web Technologies, Big Data Analytics, Object-Oriented Programming

WORK EXPERIENCE

Advanced Micro Devices (AMD), Austin, TX | *Software Engineer Intern*   June 2022 – *Present*
- Designed and developed enterprise software applications using **React**, **Flask** and **Kafka** to automate key business processes that measure and optimize performance of post-Silicon EPYC server processors.
- Increased utilization of machines running jobs to 100%, resulting in multi-fold increase in workflow efficiency.
- Created a methodology and infrastructure for Test-Driven Development using **Jest** and **React Testing Library**.
- Automated testing and CI pipelines for web applications and services to always have them ready for deployment using **Docker**.
- Authored technical documentations and software development artifacts.
- Worked in an Agile Scrum Environment.

TheRightGuru, New Delhi, India | *Lead Software Developer*   February 2021 – June 2021
- Led a team of 4 developers to create the product for a new edu-tech startup using **React**, **Django** and **PostgreSQL**.
- Architected the system design of personal education portals provided to registered students and teachers, which include features like attendance and performance visualizations, doubt solving, uploading, and viewing of lecture notes and booking classes; It also included real-time notifications and chat support, implemented using **Django Channels**.
- Created a custom video call and chat application by implementing **WebRTC** and generating our own **STUN** and **TURN** servers for live 1:1 and group video classes.

Shoes On Loose, New Delhi, India | *Backend Engineering Intern*   October 2020 – January 2021
- Created **Django** modules implementing **Event Sourcing Architecture** to record and execute tasks involved in the orders related to the supply-chain cycle of manufacturing a product; Implemented temporal queries that implement data-pipelining and determine the state of an entity at any point in time and provided 100% accurate audit logging.

TATA Communications TS, Pune, India | *Software Development Intern*   June 2020 – August 2020
- Designed and developed the Fiber Splicing Portal using **React** which was used by field engineers to record their day-to-day jobs of repair and addition of fibers and visualization of statistics.
- Tracked which fibers were serving which customer and which fibers were available for new connections and allowed the service providers to reduce their costs by 30%.

PROJECTS

Smart Shopping System | *Flutter, Firebase, Arduino, ZXing Library*
- Created a cross-platform (Android/iOS) mobile application that a user can use at a store to scan the items they want to buy and simply pay the bill online without having to stand in long queues or checkout manually.
- A RFID-Bluetooth Arduino module that tracks the entry/exit of the customers in the store and track their payments.
- Presented a research paper for the same at the International Conference on Advances in Computer Engineering 2021, Kerala, India.

DEVnet | *HTML, CSS, NodeJS, Express, MongoDB*
- Designed and developed college exclusive web portal that aimed to inculcate a more aware and opportunistic coding environment among budding coders. Implemented features like following other users, creating posts, reacting commenting on other users' posts.

Image Classification - ResNets | *Python, PyTorch, Numpy*
- Trained a Deep Residual Network (with a limit of 5M parameters at max) to classify images on the CIFAR-10 dataset of colored images with 10 classes.
- The Deep Residual Network model achieved an accuracy of 94% with less than 5M trainable parameters.

TECHNICAL SKILLS

Languages: C++, JavaScript, Python, Scala, TypeScript
Frontend: React, Angular, NextJS, Flutter, HTML, CSS, Redux
Backend: Express, Django, NodeJS, Flask, Firebase, Loopback, REST
Databases: MySQL, PostrgreSQL, MongoDB
Tools: Git, Docker, PyTorch, Tensorflow
Libraries: Numpy, Pandas, Scipy, Sci-kit Learn, OpenCV
Cloud: AWS (EC2, S3, Route53, Amplify), Heroku, Digital Ocean