AMBUJ KRISHNA AGRAWAL

Software Development Engineer

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EXPERIENCE

Senior Backend Engineer   CRED
📅 Feb 2023 – Present   ⚲ Bangalore

- Currently building bill payments platform where users can pay for their electricity, water, and rent bills. Also built a platform to buy vouchers and gift cards that is projected to earn revenue of 100k USD a month.
- Owned and built core backend services related to credit card management. Solved a complex native memory leak in JVM cutting AWS cost by 25% for many services across CRED.
- **Internship** (Feb-June 2021) - made a complete backend microservice from scratch for a new line of utility on CRED for BNPL (Buy Now, Pay Later).
- **Technologies used:** Spring boot, dropwizard, AWS (SQS, DynamoDB, S3, Parameter Store, Lambda), Datadog, signalFX, SQL.

Software Development Engineer   LinkedIn
📅 July 2021 - Feb 2023   ⚲ Bangalore

- Improved the security of LinkedIn's authentication cookie by migrating the signature algorithm used to protect it. Fixed major vulnerabilities like replay attacks during sign-in with google.
- Integrated sign in with Facebook on LinkedIn to move away from passwords with positive WAU results. Added support for Whatsapp alerts for secure communication.
- Reduced the number of API calls by 10% by analyzing the call patterns of clients. Improved the processing of the last update timestamp of users utilizing up to 50% lesser resources.
- **Internship** (May-July 2020) - Upgraded the architecture for storing phone numbers handling various edge cases. Came up with a clustering algorithm to generate the required number of regexes for phone number validation to replace google's libphonenumber.
- **Technologies used:** Offspring, Kafka, Espresso, Oracle, RestLi.

Full Stack Intern   Elucidata
📅 Oct 2020 – Jan 2021   ⚲ New Delhi

- Worked in close collaboration with the Pfizer team as a client to develop different automated workflows needed for vaccine generation by the researchers at Pfizer.
- **Technologies used:** Groovy on Grails, SQL, AWS, Docker.

ML Research Intern   IIT BHU
📅 May 2019 – July 2019   ⚲ Varanasi

- Developed a robust high accuracy model on bpi-12 and helpdesk data to improve upon the results from original research paper on Predictive Business Monitoring with LSTM and attention layer based models. **Links:** Report, Github
- **Technologies used:** Python, Keras, Pandas, Numpy.

EDUCATION

Indian Institute of Information Technology, Allahabad

Bachelor of Technology (IT) - 8.82 GPA
📅 2017-2021

PROJECTS

Deep Learning Enhanced SLAM
- Worked to improve upon the standard SLAM (simultaneous localization and mapping) implementation by introducing semantic mapping of fixed points in the existing code. Paper published in MED 2022. IEEE publication.
- **Technologies used:** python, Keras, CV

OxyTracker
- Project made for Haryana Govt. to track oxygen cylinders during peak of covid second wave in India. Facilitated the flow and tracking of cylinders to civilians and doctors from distributors identified by QR code and cylinder number.
- **Technologies used:** Firebase, node, react, express.

learn.ai
- Made a platform to ease the learning of machine learning where the users can interact with object to make customized models and get corresponding PyTorch code in real time.
- **Technologies used:** p5.js, PyTorch, Javascript

Sync It!
- Made a platform that converts a YouTube playlist to a Spotify playlist and vice versa. Optimized the searching and mapping algorithm that powered this conversion to give better results than anything in the market.
- **Technologies used:** Flask, React, Javascript

SKILLS

- C++, Java, SpringBoot, Python, Dropwizard, AWS
- Golang, Kafka, SQL, NOSQL, Flask, Node, Groovy on Grails, React
- Javascript, PyTorch, Keras

ACHIEVEMENTS

- Third prize in CRED's annual hackathon. Made an internal platform to facilitate the maker-checker process for deploying product configurations to production. Estimated savings of nearly $6.5 Million in a year.
- Team stood in the top 10 of Hack 36 organized in MNNIT Allahabad (Project: **learn.ai!**).
- Team placed 7th in over 300 submissions at Hack the Mountains 2.0 (Project: **Sync It!**)
- As the Coordinator at Rangtarangini, the dramatics society of IIIT Allahabad, led the team to win various inter-college dramatic events.