MRINAL DHAR

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EXPERIENCE

Production Engineer
Facebook / Meta

📅 April 2020 – Present   📍 London, United Kingdom

- Develop and maintain exabyte scale systems for backup and recovery for all of Meta's most critical online datasets, including the social graph, across the Family of Apps (Facebook, Instagram, Messenger, WhatsApp, Reality Labs).

Software Engineer
Bloomberg L.P.

📅 Nov 2018 – April 2020   📍 London, United Kingdom

- As part of the MODA SRE team, worked on infrastructure projects that increase reliability and provide monitoring for high frequency trading platforms that are used globally.
- Developed a Python based routing configuration manager for multi-staged clusters that helped simplify machine provisioning.
- Implemented a Cython-ized version of a Leader Election client library that interacts with a Zookeeper backend.

Student Software Developer
Rocket.Chat (Google Summer of Code)

📅 Jun 2017 – Aug 2017

- Implemented end-to-end encryption in Javascript for P2P and group messaging including file sharing for the open source chat platform, based on the Signal protocol.
- Designed and implemented software to support the Public Key Infrastructure (PKI) for the project.

CERN Openlab Summer Student
CERN

📅 Jun 2016 – Aug 2016   📍 Geneva, Switzerland

- As part of the Computer Security team, developed a fault tolerant Python based remote logins monitoring system (link) to perform intrusion detection on the CERN network, using a real-time streaming architecture based on Apache KafkaStream.

Co-Founder & CEO
Ping - Language Independent Chat Platform

📅 2017   📍 San Francisco, California

- **Top 6 Winner - AngelHack Hackcelerator (2017)**, founded a startup around this project and pitched the business to investors and VCs at AngelHack Global Demo Day 2017 in San Francisco.
- A scalable chat platform built for iOS and web browser using Socket.IO for transport and Redis for an in-memory distributed cache, augmented by Machine Learning to enable language independent communication. (link)
- Performs real-time machine translation between multiple languages, and supports Video Calling using a custom STUN/TURN server relay.

EDUCATION

B. Tech. (Honours) in Computer Science
International Institute of Information Technology (IIIT) - Hyderabad

📅 July 2013 – April 2017

- Dean's Merit List - awarded to the top 5% students in class
- Teaching Assistant for IT Workshop, Computer Networks, Systems and Network Security courses.

M.S. in Computational Linguistics by Research
International Institute of Information Technology (IIIT) - Hyderabad

📅 April 2017 – December 2018

- Towards a Deeper Understanding of Code-Mixing

SKILLS

Programming and Scripting
C++, C, Python, JavaScript, HTML5, PHP/Hack, Swift

Frameworks and Development Environments
NodeJS, Django, Flask, Selenium, XCode, Android Studio

Data streaming and storage, misc.
Apache Kafka, MySQL, Redis DB, Git, SocketIO, AWS

PUBLICATIONS

Enabling Code-Mixed Translation: Parallel Corpus Creation and MT Augmentation Approach

In Linguistic Resources for NLP Workshop, 27th International Conference on Computational Linguistics (LR4NLP, COLING 2018)

SWDE : A Sub- Word And Document Embedding Based Engine for Clickbait Detection

In Proceedings of SIGIR 2017 Workshop on Computational Surprise in Information Retrieval (CompS18, SIGIR)

De-Mixing Sentiment from Code-Mixed Text

In Proceedings of the 57th Annual Meeting of Association for Computational Linguistics - Student Research Workshop (ACL-SRW 2019)