

Education

University of Massachusetts Amherst

Expected: May 2024

Master of Science in Computer Science

GPA: 3.90/4.00

Coursework: Distributed Operating Systems, Information Retrieval, Advanced Natural Language Processing

Indian Institute of Information Technology (IIIT) Pune

June 2021

B.Tech. in Computer Science and Engineering

GPA: 9.33/10.00 (Department Rank 1)

Coursework: Data Structures and Algorithms, Cloud Computing, Machine Learning

Skills

- Languages: Python, Typescript, C/C++, Ruby, Java
- Frameworks: Terraform, Kubernetes, Docker, Rails, React, Express, MongoDB
- Software: Google Cloud Platform (GCP), Amazon Web Services (AWS), Anaconda, MATLAB, Android Studio, Git

Employment

Software Engineer Intern

Amazon

May 2023 - Present | Sunnyvale, CA

- Reduce financial anomaly detection pipeline times for Amazon devices from 8 hours to 15 minutes using time-series models.

Software Engineer

Gojek

July 2021 - August 2022

- Led development of the shared VPC infrastructure as code platform Skynet to onboard **1300+** internal applications (Blog).
- Architected the internal DNS infrastructure using **GCP Cloud DNS** and DNS peering to enable cross-project services.
- Extended Cerebro, IPAM tool that manages **5000+** IP ranges across Gojek, to be the DCIM source of truth for 200+ routers.

Open source Contributor

Google Summer of Code

May 2021 – August 2021

- Developed Poll Plus, Typescript based polling app for Rocket.Chat. Downloaded **1600+** times across all servers (Report | (App)).
- Founded RC4Community - React based componentized platform for online communities. **30+** stars on GitHub.
- Coded features to additional projects, GSoC Leaderboard, RC4GitHub, Rocket.Chat within the organization (Contributions).

Product Engineering Intern

Gojek

May 2020 – November 2020

- Programmed CLI auto-complete feature using ZSH & Homebrew for internal tools within **3 weeks** to achieve **100% onboarding**.
- Started ziggurat-web using Gatsby. Became the **first** open-sourced project of the team (GitHub).

Research Intern

DRDO

December 2018 – January 2019

- Modeled an end-to-end machine learning architecture using Keras to predict landslides with **94%** accuracy.
- Feature-engineered over **1 million** GIS time-series data samples between Rishikesh and Gangotri to train the model.

Projects

- **Someity** Chrome based extension to make websites across the Internet more accessible without changing any source code. **Winner Hack-cessible hackathon. Winner Pitch Perfect.** Javascript, Chromium, ASR, a11y (Webstore|GitHub|ProductHunt).
- **ALPR For Indian Vehicles** A framework trained on **2500+** images to extract text from license plates and automatically bypass CAPTCHA of vehicle database to get vehicle & owner information. Python, Tensorflow, YOLOv3, GCP, ML (GitHub).

Honors and Activities

- Engineering co-lead for the **Alexa Prize Challenge** team from UMass Amherst, focusing on LLM scaling on AWS.
- Mentored **two** projects at Rocket.Chat - EmbeddedChat and Rocket.Chat GitHub App at Google Summer of Code 2022.
- **Best Innovation Award** in Computer Science for FastV2C Handnet paper at ICICC, UILA 2020
- Created FaceLook - facial recognition app for missing persons. **Top 1%** in Missing Hackathon out of 2500 participants.
- Started InfInITy a competitive programming contest at IIIT Pune. Now held annually on Codechef with **12,000+** submissions.

Publications

- [1] N. Karra, R. Lekhwani, B. Singh, and T. Hazra, "Modeling and Predicting the COVID-19 Trajectory in India," in *2022 IEEE 7th International conference for Convergence in Technology (I2CT)*, 2022, pp. 1–5. doi: 10.1109/I2CT54291.2022.9825301.
- [2] R. Lekhwani and B. Singh, "FastV2C-HandNet: Fast Voxel to Coordinate Hand Pose Estimation with 3D CNNs," in *International Conference on Innovative Computing and Communications*, Springer Singapore, 2021, pp. 413–426, isbn: 978-981-15-5113-0.