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Raghav Kuppan

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Education

Atlanta, GA **Georgia Institute of Technology** **Fall 2017 – May 2019**

- M.S in Electrical and Computer Engineering, GPA: 3.9/4.0

Tiruchirappalli, India **National Institute of Technology** **Fall 2013 – May 2017**

- B.Tech in Electronics and Communications Engineering, GPA: 8.94/10

Experience

Software Engineer **Zeta** **Summer 2022-Present**

- Builder, owner and maintainer of critical Financial ledger and transaction microservices in Java Springboot. Services used by HDFC's Payzapp app as well as Sodexo in several countries including India, Vietnam and Spain.
- Performed critical performance improvements that pushed throughput for Balance and Account queries to >300TPS
- Designed, built and deployed a single continuous data backfilling pipeline that backfilled records in real-time as well as over 40 million historical records using just SQL and a tool called meltano.
- Came up with a fast and extensible DB schema using GIN indexes that sped up convenience APIs by an order of magnitude and also expanded their use cases.
- Was the sole maintainer and on-call for several critical services for a period of 3 months. Drove several Sev1 and Sev2 incidents to closure while also handling business asks.

Software Engineer **Varian Medical Systems** **Summer 2019-Summer 2022**

- Worked with the Velocity team on Imaging algorithms and Data Management solutions
- Helped build and design the Cloud Connector - a cloud-based routing system for hospitals. Features include automatic deployment and scaling of relay instances on AWS, microk8s based system for router deployment and health-checks, lambda based backend systems and remote management of Virtual Machines and NUC boxes using Ansible and systemd. System deployed in US and EU.
- Helped build and design the infrastructure for a cloud-based Image Segmentation Service. Allowed clinicians to automatically segment cancerous tissue in images with a single button-click.
- Rewrote core sections of a large legacy codebase in modern C++, fixed several memory leaks

Research Intern **Cobalt Speech and Language** **Fall 2018**

- Built speech recognition and NLP models using the Kaldi toolkit. Validated and tested Speech models using shell/Go scripts; achieved production grade Word Error Rates (<10%)
- Wrote a microservice in Go to format and truecase sentences; achieved accuracy of over 90%

Technical Experience

Projects

- **Advent of Code** (2020, 2021, 2022). Completed puzzles in the Advent calender. Used Rust
- **Disease Classification** (2017). Classify Schizophenia patients from fMRI data using SVM/Neural Nets. Python

Awards and Publications

- **Mitacs Globalink Research Internship Award (2016):** Summer Research Internship under Prof Abu Sesay at the University of Calgary.
- **Zeta Outstanding Performer (2022-23):** Multiple Shining Star Awards at Zeta

Languages and Technologies

- Java; Python; C++; Rust; Javascript; Go;
- Docker, Kubernetes, Terraform, AWS, PyTorch, Linux, Scikit-learn