Pranesh Pandurangan

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Education

2011-2013 **MS, Computer Science** Georgia Institute of Technology(Atlanta)

Specialization: Systems

2007-2011 **BTech, Computer Science and Engineering** National Institute of Technology(Trichy)

Experience

Software Engineer, Dropbox, Nov 2016 -

- As a two-engineer team, moved all of the app infrastructure state from MySql to Dropbox's custom graph database.
- Design and implement techniques to allow apps to scan a team's dropbox efficiently, as part of a larger project to normalize filesystem and shared folder authorization across the company.
- Remove Amazon S3 dependency in our file upload API.
- API Proxy
  - In context of breaking down our monolithic code into services, design and implement an external facing service to proxy API requests to internal services.
  - Move dropbox from multiple IDLs to one (protobuf)
  - Design a standardized auth object to pass around between internal services.

Senior Software Engineer, GoDaddy Inc, Mar 2016 - Nov 2016

- Prototype managed Kubernetes cluster
- Prototype managed Openstack Ironic cluster

Tech Yahoo, Intermediate, Yahoo Inc, Jul 2013 - Mar 2016

Openstack developer

- Getting OpenStack to be used at Y! (as its core infrastructure), which involved code changes to OpenStack, conferences and session talks on needed features (ie to be used at Y! scale) and integration into Y!'s core systems and ensuring the work that Y! does is given back to the community.
  - Techniques to package and deploy openstack robustly at Yahoo using **anvil**. We went from deploying once in six months (once every major upstream release), to being able to deploy at every commit.
  - Work on integrating the openstack provision and deprovision flow into Yahoo's provisioning system. Integrate into Yahoo's dns, ops, load balancer databases/services.
  - Work on a fork of openstack to allow us to migrate a six-figure number of machines at Yahoo to a more elastic model. An outcome of this that I was responsible for was to reduce the SLA

for obtaining a new machine in a standard configuration from O(months) to under 5 hours. Two major chunks I worked on were to design a Yahoo-focussed, generic quota system, and to hack at the scheduler to handle a 10x higher load than it was designed for.
  - Work on improving the community baremetal project, **Ironic** to improve concurrency by elminating some race conditions in the scheduler. This was a community solution that I implemented, tested and proved better (through scale tests).

Graduate Research Assistant, Georgia Tech, 2012-2013

- Computation Offloading for mobile applications
  Automatically detect and offload computation-intensive components of mobile applications to the cloud, while accounting for intermittent connectivity to the internet. Implemented on android.
  - COSMOS: Computation Offloading as a Service for Mobile Devices.
    Cong Shi, Karim Habak, Pranesh Pandurangan, Mostafa Ammar, Mayur Naik, and Ellen Zegura. MobiHoc'14: ACM Symposium on Mobile Ad Hoc Networking and Computing.
- Intermittent Storage for Mobile Devices
  Framework to enable mobile devices to temporarily offload files to nearby devices when out of space and lacking network connectivity. Implemented the framework in the **ONE simulator**

Interim Engineering Intern, Qualcomm Inc., 2012

- Designed and implemented a task level profiling tool in C and Python. This was a software implementation of a hardware tool used in judging modem performance

Technical Experience

Programming Languages Python, C, C++, Java