PRANAV BHAT

pranavtbhat.me github.com/pranavtbhat linkedin.com/in/pranavtbhat

EDUCATION

University of California, Los Angeles MS. Computer Science Dec 2017 (Expected)

Coursework: Distributed database systems; Statistics programming; Animats modelling

National Inst of Technology Karnataka B.Tech Computer Engineering May 2016

GPA: 9.51/10.0

EXPERIENCE

Anderson School UCLA Programming Assistant

Fall 2016

Assisting Prof. Ivo Welch with web development and setting assignments for MFE 237A (Corporate Finance).

Google Summer of Code Student Developer May – Aug 2016

JuliaLang. Mentor: Viral B. Shah

- Developed Graft.jl, a graph analytics package with support for vertex labelling, metadata and graph queries. Presented project remotely at JuliaCon-MIT.
- Improved the functionality and performance of Julia's sparse-matrix search operation, and helped fix a code generation bug.

Amazon, Hyderabad

Software Engineering Intern

May – July 2015

- Worked in the Supply Chain Optimization Technologies team.
- Developed a web service to generate periodic usage metrics of a configuration service.
- Developed a Ruby on Rails web site to visualize the obtained metrics, and helped prevent over-provisioning during peaks.

TECHNICAL SKILLS

Programming Languages	Frameworks and Tools	Web Development	Databases And Operating Systems
Java; C/C++; Python; Julia	R; Hadoop; Spark; Git;	Django; Ruby on Rails;	MySQL; DynamoDB; Neo4j; Linux;
	NetworkX	AngularJS; JQuery	MacOS, Windows

PROJECTS

Distributed Database Systems

Course Project

Fall 2016

(Julia)

• Implemented spark jobs to match each word in a file to its most common bigrams.

(Hadoop, Spark)

• Designing user defined aggregators and external hashing support for map-reduce jobs.

Julia Graphs

Open Source Contributor

July 2015 - August 2016

- Explored how combinatorial graph algorithms could be implemented on shared sparse matrices, using the Bulk Synchronous parallel model.
- Implemented IPC through matrix transposes in shared memory.
- Built the flow algorithms module for LightGraphs.jl

Concat: A Catalog for Conferences

Full Stack Development

Technical Assistant

Jan - July 2016

• Contributed to a web site that matches academics to conferences in their research areas.

(AngularJS,

• Scaled the website horizontally on AWS, using the Elastic Beanstalk, S3 and CloudFront services.

Django, AWS)

• Developed an application to continuously monitor the health of remote hosts used by RTLabs.

Jan – June 2015 (Shell script,

• Visualized the log data to help detect patterns of poor latency, downtime and jitter.

Python)

Gephi)

Sharding Social Databases

Remote Trigger Labs

Course Project

Jan - May 2015

• Studied heuristic based strategies for the allocation of user data in distributed databases.

(NetworkX,

• Compared the query latencies and load distributions of random sharding with heuristic based techniques such as iterative vertex swapping.

• Published technical report in Social Network Analysis and Mining (SNAM), Volume 5.

Network Simulator

Course Project

June - Dec 2014

• Designed a patch to incorporate UDPLite into NS2.

(NS2)

Contributed to a patch to eliminate a bug in the ARED AQM for wireless nodes in NS2