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PRANAV BHAT

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EDUCATION

University of California, Los Angeles — **MS. Computer Science** — **Current**

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; NetworkX	Django; Ruby on Rails; AngularJS; JQuery	MySQL; DynamoDB; Neo4j; Linux; MacOS, Windows

PROJECTS

Distributed Database Systems — **Course Project** — **Fall 2016** (Hadoop, Spark)

- Implemented spark jobs to match each word in a file to its most common bigrams.
- Designing user defined aggregators and external hashing support for map-reduce jobs.

Julia Graphs — **Open Source Contributor** — **July 2015 - August 2016** (Julia)

- 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** — **Jan - July 2016** (AngularJS, Django, AWS)

- Contributed to a web site that matches academics to conferences in their research areas.
- Scaled the website horizontally on AWS, using the Elastic Beanstalk, S3 and CloudFront services.

Remote Trigger Labs — **Technical Assistant** — **Jan – June 2015** (Shell script, Python)

- Developed an application to continuously monitor the health of remote hosts used by RT Labs.
- Visualized the log data to help detect patterns of poor latency, downtime and jitter.

Sharding Social Databases — **Course Project** — **Jan - May 2015** (NetworkX, Gephi)

- Studied heuristic based strategies for the allocation of user data in distributed databases.
- 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** (NS2)

- Designed a patch to incorporate UDPLite into NS2.
- Contributed to a patch to eliminate a bug in the ARED AQM for wireless nodes in NS2