Pranav Thulasiram Bhat

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EDUCATION

B.Tech. Computer Engineering July 2012 – May 2016
National Institute of Technology Karnataka, Surathkal.
Current Cumulative GPA - 9.55 (on a scale of 10).
Ranked Third in a class of 106.

EXPERIENCE

SDE Intern, Amazon Development Center(India) May - July 2015
Worked in Supply Chain Optimization Technologies. Was responsible for the development and deployment of a web service to monitor a Tier 1 service in Amazon's retail pipeline.

Founding member, Concat February 2015 – Present
Helped create Concat, a website that helps Indian researchers find conferences and journals in their areas of research.

PUBLICATIONS

Social Network Analysis and Mining July 2015
Pranav Thulasiram Bhat, Rohit Varkey Thankachan, and K. Chandrasekaran."Sharding distributed social databases using social network analysis." Social Network Analysis and Mining, Springer Vienna 5.1 (2015): 5-31

Intelligent Systems, Modelling and Simulation(ISMS) February 2014
Kashyap, Rakesh, Malladihalli S. Bhuvan, Srinath Chamarti, Pranav Bhat, Mintu Jothish, and Karker Annappa."Algorithmic Approach for Strategic Cell Tower Placement." In Intelligent Systems, Modelling and Simulation (ISMS), 2014 5th International Conference on, pp. 619-624. IEEE, 2014.

RESEARCH AND PROJECTS

Undergraduate Major Project July 2015 – Present
Julia Network Analysis Platform:
Development of a distributed network analysis platform that allows users to analyze, mine and restructure complex graphs. Also developed the Flow algorithms module for LightGraphs.jl.
Guide: Prof. Mohit P Tahiliani

Minor Thesis
Sharding Social Networking databases
Worked on efficient sharding algorithms for the distributed databases used in Social Networks. Compared the performance of community-based sharding strategies to Random Sharding, the de facto industry standard, in both static and dynamic topologies.
Guide: Prof. K. Chandrasekaran

Computer Graphics Course Project
3D Functional Graphics
Contributed to Compose3D, a Julia package that uses functional programming constructs to simplify the generation of 3D meshes.
Guide: Dr. Shashidhar G Koolagudi

Computer Networks Course Project
Network Simulator 2
Integrated the UDPLite protocol into NS2, and studied the performance of UDPLite in audio streaming applications over error prone networks. Also developed a patch to fix a long standing bug in the ARED AQM for wireless nodes.
Guide: Dr. Mohit P Tahiliani

Information Security Course Project
Security risks of semantic search engines in Social Networks
Studied how Semantic Search Engines in social networks, such as Facebook's Graph Search, can be used in Spear Phishing. Proposed solutions to counter the vulnerabilities discovered.
Guide: Prof. K Chandrasekaran

AWARDS

Arun M. Hegde award April 2015
Highest Undergraduate Semester Grade Point Average.

All-India Engineering Entrance Examination
99.84 percentile May 2012
Ranked 2126 among 1.3 million candidates who appeared for the exam.

RELEVANT COURSEWORK

Systems and Networking:	Operating Systems, Data Communication, Computer Networks, Database Management Systems, Unix Network Programming, Advanced Computer Networks, Distributed Computing Systems.
Mathematics:	Engineering Mathematics I&II, Concrete Mathematics, Discrete Mathematical Structures, Probability Theory and Applications.
Theory:	Data Structures and Algorithms, Theory of Computing, Design and Analysis of Algorithms, Advanced Data Structures, Compiler Design.

COMPUTER SKILLS

Programming Languages	Java, Python, Julia, Matlab and R.
Web Programming	HTML, Javascript and Django.
Operating Systems	Linux, Mac OS and Windows.
Cloud Computing Services	AWS, AppEngine and Heroku.

EXTRA-CURRICULAR ACTIVITIES

Core Member of the Mathematics Club
National Institute of Technology, Karnataka
Took up the initiative to promote awareness of mathematics in the student body.

Microsoft Student Partner
Worked alongside Microsoft professionals to conduct Microsoft campus events, hackathons and tech-talks.

Volunteer at Juliacon India, 2015
Volunteered to help organize a conference promoting the Julia programming language.