Prithvi Raj Venkat Raj — Curriculum vitae

Contact Information

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Education

University of Florida, Gainesville, FL USA — **November 2012**

M.S., Computer Engineering — GPA: 3.62 (4.0 scale)

- Thesis Topic: News Gathering and Reporting using mobile devices
- Adviser: Professor Abdelsalam Helal
- Area of Study: Mobile computing and Social Networking

Crescent Engineering College, Vandaloor, Chennai, India — **December 2010**

B.Engg., Computer Science and Engineering — First Class

- Project Topic: Reverse Image Search on iPhone
- Adviser: Professor Angelina Gita

Professional Experience

Department of Education, University of Florida, Gainesville, FL USA

iPad Software Developer for K-CRATI — **November 2011 – Present**

- Adapting experiments designed to measure cognitive skills of kindergarten students

Grooveshark, Gainesville, FL USA

Software Development Intern - Data — **May 2011 – August 2011**

- Analysed metrics to characterize Apache Hadoop jobs
- Extended Sqoop mySql export functionality to include Apache Hive partitions

Microsoft, Chennai, India

Microsoft Student Partner — **June 2008 – May 2010**

- Primary liaison between Microsoft and Crescent Engineering College, Chennai
- Administered MSDNAA and Live@Edu

Project Work

University of Florida, Gainesville, FL USA

Large Scale Data Analysis

- SAMwise: Providing City Trotting Recommendations
  - Compared different topic modeling toolkits, feedback mechanisms
  - *Technology*: Mallet NLP Framework, PHP, CSS, Google Maps API

Mobile Networking

- PRIDE: PRivacy preserving Intelligent riDEsharing
  - Analyzed wifi traces, and computed route similarity to find significant fuel savings while providing k-Anonymity for users
  - *Technology*: Google Earth KML generation, MySQL, bash scripting, matplotlib

Mobile Computing and Pervasive computing
- DroiDrive: Saving fuel with Android and Facebook
  - Characterized driving style by evaluating sensor output, designed metrics and incorporated game mechanics for motivation
  - *Technology*: Android SDK, Facebook API, SMSLib, SensorSimulator
- Optimization of Atlas Sensor Platform
  - Reduced Energy consumption by ~20 percent
  - Implemented sensor reading caching, dynamic push-pull conversion, lazy sensor initialization
  - Used ontology to eliminate certain actuator movement requests
  - *Technology*: Knopflerfish, Atlas Reactive Engine

Computer Networks
- Implemented a command line peer to peer file transfer program based on the bit torrent protocol
- *Technology*: Java

Distributed Operating systems
- Implemented applications that distribute computation to clients, CREW problem, Suzuki- Kasami broadcast algorithm using sockets and multithreading
- *Technology*: Java

Crescent College, Vandaloor, Chennai India

Senior Project
- Reverse Image Search on iPhone
  - Developed a geolocation aware image crawler and search engine
  - Collaboratively used users' skill to recommend similar results
  - *Technology*: Objective C, MySql, Java

Hardware and Software Skills

Data Platforms:
- Apache Hadoop, hive

Computer Programming:
- C, C++, Objective C, UNIX shell scripting, and others

Version Control and Software Configuration Management:
- DVCS (Git), and others

Information/Internet *Technology*:
- Networking, Services (Apache, SQL, MediaWiki, POP, IMAP, SMTP)

Mobile and Social Platforms:
- iPhone, Android, Facebook API, Twitter API, Neo4j

Productivity Applications:
- TEX (LATEX, BIBTEX, PSTricks), Vim, most common productivity packages (for Windows, OS X, and Linux platforms)

Operating Systems:
- Microsoft Windows family, Apple OS X, Linux and other UNIX variants

Embedded Systems:
- Software and hardware development with Atmel MCUs and Arduino

References Available to Contact

Available upon request.