CHAITANYA CHOUDHARY NETTEM

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SUMMARY

Masters student in Computer Science interested in data structures, algorithms, web applications and distributed systems. Searching for internship positions for summer 2014.

EDUCATION

University at Buffalo, the State University of New York Aug 2013 – Dec 2014

- **Master of Science** (Computer Science)
- **Courses**: Operating Systems, Analysis and Design of Algorithms, Computer Security, Computational Biology, Distributed Systems, Machine Learning

Visvesvaraya Technological University, India Aug 2009 – Jun 2013

- **Bachelor of Engineering** (Computer Science and Engineering)

SKILLS

- **Languages:** C, C++, Python; Familiar with Java, Matlab, R, JavaScript
- **Frameworks and Tools:** web.py, Git; Familiar with Django, jQuery, PostgreSQL, OpenCV
- **Operating Systems:** GNU-Linux, Raspbian (Raspberry Pi)

INTERNSHIPS

Research Intern Dec 2011 – Jan 2012

Indian Institute of Science, Bangalore

- Assisted in research regarding viability of Genetic Algorithms as a technique for metabolite assignment.
- Implemented and tested genetic algorithms in R and compared them against traditional methods such as binning and Bayesian modelling.

Engineering Intern Dec 2010 – Jan 2011

Bharat Petroleum – Greater Noida

- Designed and developed Network Monitoring System based on SNMP in Perl.
- The objective was to monitor links for maintenance of Service Level Agreements with ISPs.

RECENT PROJECTS

Group Messenger in Android (Java/Android) March 2014

https://github.com/chaitanyanettem/groupmessenger

- Created distributed Android messenger app which maintains total and causal ordering of messages.
- Used a local persistent key value store in the form of a Content Provider in Android to store messages.
- Project was part of Distributed Systems course work.

Handwritten digit classification (Matlab) March 2014

- As part of Machine Learning course, implemented back propagation Neural Network and k-Nearest Neighbors.
- Objective was to identify Handwritten Digits from the MNIST database.
- Performed various tests to compare efficacy of Neural Network vis-à-vis k-Nearest Neighbors in terms of learning speed, accuracy etc.

Fall Detector with Raspberry Pi (Python) Ongoing

Proposal presented at Pycon 2014 (https://us.pycon.org/2014/schedule/presentation/104)

- Used Raspberry Pi with a USB camera to identify human silhouettes using HoG image descriptors.
- The goal is to detect a falling human under varying environmental factors such as lighting and angle.
- This project was accepted as a poster for presentation at Pycon 2014.
- Developed in Python using OpenCV.

Price Comparison Engine (Python) Mar - May 2013; Dec 2013

http://chaitan.cloudapp.net/justcompare

- Created search engine for book prices in Indian retail sites.
- Wrote scrapers for 5 different stores in Python using the python-requests and BeautifulSoup APIs.
- Data from scrapers is stored in a Postgres database. (At last count, I had over 2 million books indexed)
- Website implemented with HTML, CSS, JavaScript, the web.py framework and PostgreSQL full text search.

Multithreaded Web Server (C) Oct 2013 – Nov 2013

https://github.com/chaitanyanettem/webserver

- Implemented multithreaded HTTP/1.0 server which handles GET requests.
- The web server runs separate threads to listen for, schedule and execute requests.
- Used POSIX pthreads in C for multithreaded programming with synchronization.