Aneesh Neelam

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Skills

Programming Languages: C, Java, C++, Python, Node.js, Go, Haskell

App Development: Android

Operating Systems: FreeBSD, Linux, Android, macOS

Frameworks: Hadoop MapReduce, Nvidia CUDA, OpenCL.

Databases: MongoDB, PostgreSQL, MySQL/MariaDB

Experience

University of California, Santa Cruz / Teaching Assistant
January 2016 - March 2016, September 2016 - Present; Santa Cruz, CA, USA.

Taught and guided students regarding conceptual projects entailing modifying/writing a lottery process scheduler, "slim chance" pageout daemon and a new cryptographic filesystem for FreeBSD, placed in charge of the grading for those assignments.

CorpInsights / Intern
June 2014 - October 2014; Vellore, Tamil Nadu, India.

Worked on a tool that attempts to predict the most profitable time to buy or sell stock, using Machine Learning and Technical Analysis (TA-Lib) on historical stock data taken from Yahoo Finance API.

Hindustan Aeronautics Limited / Intern
June 2013 - July 2013; Hyderabad, Telangana, India.

Helped develop the Pilot's Controller and the System Simulator software for the Indian military's Software Defined Radio (SDR) Network project.

Education

UC Santa Cruz / Master's in Computer Science
September 2015 - Present; Santa Cruz, CA, USA.   Current GPA: 3.51 / 4.00

Specialized in Computer Systems, taking courses like:

- Advanced Operating Systems
- Computer Architecture
- Storage Systems
- Distributed Systems
- Advanced Parallel Processing
- Machine Learning

VIT University / Bachelor's in Computer Science & Engineering
July 2011 - May 2015; Vellore, Tamil Nadu, India.   CGPA: 8.53 / 10.00

Comprehensive Computer Science & Computer Engineering curriculum.

Research Work and Projects

Resist: A filesystem for dissidents / Master's Project
February 2016 - Present; Santa Cruz, CA, USA.

A FUSE file system and a Linux Device Mapper that a dissident might use in an authoritarian state. Combines some aspects of encryption and steganography to provide plausible deniability.

Port Linux kernel to 1024 RISC-V cores simulated using Spike
September 2016 - Present; Santa Cruz, CA, USA.

Ported the Linux kernel to run on 1024 RISC-V cores emulated using Spike, a RISC-V ISA Simulator. Part of a project where a custom parallel memory subsystem is being developed for the RISC-V architecture.

A survey on Container Orchestration
September 2016 - Present; Santa Cruz, CA, USA.

A survey on various orchestration tools for deploying containers on clusters in data centers. Survey aims to provide a guide for software engineers, system and data center administrators when choosing the right tool for the right workload, right hardware/software limitations and performance constraints. Focused on Docker, Kubernetes and Apache Mesos.

MASCOTS 2016 - Subreviewer
June 2016; Santa Cruz, CA, USA.

Reviewed: J. Hyun Kim, Young Je Moon and Sam H. Noh, "An Experimental Study on the Effect of Asymmetric Memory Latency of New Memory on Application Performance".

VITacademics
May 2014 - August 2015; Vellore, Tamil Nadu & Hyderabad, Telangana, India.

Web API backend server and various apps for Android, Windows, iOS & web that helps students of VIT University keep track of their academic metrics. Personally worked on Node.js backend, Android app. Check it out at:
vitacademics-rel.herokuapp.com.

Naive Bayesian Classifiers
May 2014 - May 2015; Vellore, Tamil Nadu, India.

One is a single-threaded Java app that predicts whether a particular region is prone to landslides. The other is a Python program that uses Hadoop Streaming to predict the electricity usage of a building.

Activities

IEEE Computer Society - VIT Student Chapter / Technical Lead
October 2013 - October 2014; Vellore, Tamil Nadu, India.

Organized various competitions and events in the campus. Conducted many workshops about various technologies and imparted technical skills.

Computer Society of India - VIT Student Chapter / Volunteer
January 2013 - November 2013; Vellore, Tamil Nadu, India.

Attended various events and workshops. Participated in various competition and mostly won 1st or 2nd places.