NitinMahendru

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MS CS Candidate | UC Davis
Graduating June 2015

:: PROFESSIONAL EXPERIENCE

Software II Engineering Intern at Cisco RTP NC USA | Jun − Sep 2014

- Created an innovative solution to address customer complaints related to bug scrub tools not identifying the complete set of known defects. Developed scripts (Python-based) used to validate internal software defect check-ins (clearcase/acme branches) vs customer-facing release versions. Scripts identified human errors in release version entry and inserted corrections on a nightly basis. Initial deployment resulted in correcting 200+ errors across 4 major release branches. Ongoing effectiveness measured via CSAT (customer satisfaction) surveys.
- Developed scripts to compute heatmaps for IOS-XE release branches to identify both files and functions changing most frequently. Resulting data used to drive QIP (quality improvement plan) focus for improved test and development coverage for these hotspots.

TA | Software Development and Object Oriented Programming, UC Davis | Oct 2014 − **present**, Oct − Dec 2013

System Engineer | Tata Consultancy Services, Gurgaon, India | March 2010 - August 2013

- Development, enhancement, testing, deployment and production support for a set of web services for all bank functions. Built and tested 3rd party interfaces to ATM kiosks. Used the TIBCO suite/Core Java for doing the same.
- Added functionality/enhanced the existing backend IBM mainframe system for credit card rewards processing. Wrote a REXX script for automating production parallels. Saved 15,000 annually for our client.

:: TECHNICAL SKILLS

- C, C++, Core Java, Python/Perl, MySQL(beginner), Shell Scripting(beginner), Web Services, SOAP, XML.
- Good Understanding of Data Structures and Algorithms.
- Beginner level knowledge of Linux Kernel Internals.
- Tools: Eclipse, IntelliJ gcc, g++, gdb, javac, gvim, Tortoise SVN(beginner), git(beginner), TIBCO suite, Ubuntu, Windows, Mac

:: EDUCATION

University Of California, Davis | Master Of Science in Computer Science | GPA 3.91/4.0
Coursework: Algorithms, Programming Languages, O.S., A.I., Computer Architecture, Computer Networks, Prob and Statistics for C.S.

:: ACADEMIC PROJECTS

Socially aware Kernel | Sept 2014 − **present**

- Inserting SID(Social Informatics ID) into the kernel as a user ID.
- Limiting file access based on that by pairing inode numbers with the SID.
- Logging all file system activity by hooking up to system calls. This will be used for monitoring.
- Adding system calls for SI id retrieval and insertion.

Finding Bugs in V8 Using Equivalence Modulo Inputs (EMI) | Apr − Jun 2014

- Built a tool(ASTPruner) to generate EMI inputs for a input JavaScript code using the AST generated from esprima. We could effectively prune statements at block/function/statement level.

Connect 4 Game | Jan − Mar 2014

- Developed a heuristic in Java using Bitmaps(really fast execution) to get the next move of our player in < .5 sec. We beat every player in the class(total 39).

Neural networks for Facial Recognition | Jan − Mar 2014

- Wrote code (Java) to implement a Artificial Neural Network for identifying the sex of a bitmapped image(128X128).
- Our network could identify unknown images with 82 % accuracy.

Voluminous 3D LED Display | Jan − May 2009

- I programmed the microcontroller in C/Assembly to scan the cube at 30 fps. youtube link