Siddharth Rajguru

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Summary

A motivated Electrical Engineer with experience in embedded systems, medical devices and open source cloud based development

Education

M.S., Electrical Engineering, Texas Tech University, TX. (GPA: 3.5) Dec. 2015

B.S., Electrical Engineering (Math. Minor), Texas Tech University, TX. Dec. 2013

Experience

(References on request)

Blackberry Corp., Redwood City, CA.: Software Developer Student (Enterprise Cloud IoT applications) May 2015 – Aug. 2015

- Implemented and managed VM configuration scripts using Ansible configuration management tool
- Created Node Package Management (npm) solutions for private publishing and package hosting
- Implemented scripts in Jenkins for continuous integration and automated publishing
- Created functional test cases and tested NodeJS applications and databases
- Received experience building cloud infrastructure and designing for scalability in an Agile Scrum environment

Carl Zeiss Meditec, CA.: System/Software Intern (Cirrus HD-OCT product line research and development) Jun. 2014 – Oct. 2014

- Debugged C# applications, performed integration and performance testing
- Stress tested medical device hardware using over-clocking and benchmarking tools
- Took the lead to provide a product workflow strategy for optimizing hardware performance and cost on future products
- Received training in TFS (code control), Scrum, medical device lifecycle, software workflow and testing/monitoring tools

Texas Tech University, TX.: Tutor, Electrical Engineering Jan. 2014 – May 2015

- Created instructional videos and assist students on FPGAs and digital logic theory

Texas Tech University, TX.: IT support, IT Solutions Center Aug. 2013 – Nov. 2013

- Provided support on Microsoft products and network related issues

Notable Projects 2011-2015

Academic/Self Started Projects

- Personal Web Application: Created and deployed a web application for hosting my portfolio
  - Created front-end using HTML, CSS and Bootstrap components
  - Deployed and tested application on AWS EC2 Ubuntu 14.04 instance
  - v1.0.0 deployment using NGiNX reverse proxy and ExpressJS server with basic security
  - Security: DoS mitigation, connection limits, request rate/burst limit, blacklisting
  - In-progress:Enhancements: Docker container deployment, NGiNX caching and load balancing
  - In-progress:Security: WAF, NGiNX access log parsing, basic authentication.
- Medical Imaging: Implement MRI, CT and Doppler Ultrasound reconstruction techniques
  - MRI: Image significance mapping for multi-coil image reconstruction
  - MRI: Created a Matlab algorithm for FOV based image cropping and significance map generation
  - CT: Usage of radon and inverse radon transform algorithms for projection based reconstruction
  - CT: Fourier domain filters for noise reduction and blur reduction
- Image processing service: Created a web service using WCF with a forms app for frontend usage
  - Implemented OpenCV image processing algorithms on the backend service along with a SQL lite database
  - Deployed forms application using IIS Express server
- 32-Bit RISC behavioral model (Xilinx ISE and Verilog)
  - Developed chip-level designs for functional and storage modules on a standard RISC architecture

Tools and Language familiarity

OpenNebula	Ansible	npm	NodeJS	JavaScript	Security	GRUNT	Shell Script	JSON
Docker	Firewall	CSS	HTML	AWS EC2	REST	NGiNX	Couchdb	Jenkins
Git / Gerrit	Mocha	JIRA	MATLAB	Visual Studio	Linux	Verilog	C/C++	ARM

Activities and Awards

- Ray Butler Scholarship awarded by Texas Tech University 2015
- Russell Seacat Jr. Scholarship awarded by Texas Tech University 2014