Vishal Kotcherlakota

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Objective

Software engineering position focused on design and implementation of large-scale software projects, backed by Agile and DevOps best practices.

Professional Summary

Strong software design and development skills across multiple languages and operating systems.

Welcomes constructive criticism of his work and displays a collaborative orientation with demonstrated success in a professional software development setting.

Refined presenter, with experience pitching to peers as well as internal and external customers. Proven track record of success communicating to multiple levels of understanding, ranging from engineers to exectuives.

Specialist in DevOps technologies and processes. Focused on the use of Ansible, Packer, and Vagrant, coupled with tools like Git and Jenkins to create continuous delivery environments.

Active member of his community, participating in STEM outreach to disadvantaged schools.

Key Achievements

Evangelist for the Panopticon Geospatial Integration and Visualization Framework. Responsibilities include technical consulting, presentation, and developer outreach.

Implemented a DevOps workflow that enabled easy deployment of a command and control (C2) application, turning a 6-8 hour process into one that takes less than 45 minutes.

Key member of a team developing and maintaining a C2 application written in a mixture of Java, C++, and Ada. Responsible for the design and development of multiple features, including their demonstration to internal/external customers.

Led a team of 10 contractors and 5 interns through a 5-month Unit Test remediation project for a safety-critical train management system. End result was a unit test base that more thoroughly and accurately represented the state of the software.

Mentor for summer internship program. Responsibilities included providing day-to-day direction, managing a curriculum of professional development and planning an end-of-summer presentation for local site leadership.

Completed a simulation authoring project for our C2 application. Responsibilities included securing funding, designing the application, developing the software, and presenting the results over a period of 6 months.

Relevant Skills

Proficient in the design and development of applications written in:

- Java (JDK 7-8)
- Python (2 and 3)
- JavaScript (including Node.js and AngularJS 1.x)
- C and C++ (including embedded programming)

Familiar with development using Service Oriented Architectures (SOA) including IDL, DDS, SOAP, and ReST.

Participated in and led Agile development teams.

Proficient in workflow tools including: Ansible, Vagrant, Packer, Mercurial, Git, Jenkins, JIRA, Confluence, FishEye/Crucible.

Systems administration for Windows, Linux, and Mac OS X Systems, as well as the VMWare ESXi/vCenter platform.

Currently holds a **US DoD SECRET** clearance.

Education

University of California, San Diego (2006-2010) B.S. Electrical Engineering

University of California, Los Angeles (2012-2015) M.S. Engineering (Computer Networks)

Professional Experience

Lockheed Martin (June 2009 - Present)

Selected Highlights

Panopticon -- Software Engineer and Evangelist (Apr 2014 – Present)
- Software developer for Panopticon, a GeoSpatial integration and visualization platform for air/land/sea/space built on top of NASA's Java-based WorldWind SDK
- Developed plugins related to simulation authoring/playback, command and control operations, and fire control for air defense, delivering a completed product in as little as 3 months.
- Served as an evangelist and technical consultant for the platform, helping teams across the Lockheed Martin Corporation to exploit Panpticon's capabilities in a wide array of applications.
- Maintained and documented Panopticon's plugin based architecture, both in JavaDoc and internal wiki.

Technologies: Java, WebStart, WorldWind, Ant, ReST, SOAP, DDS

Rail Systems -- Lead Software Engineer (Oct 2014 – May 2016)
- Led teams of up to 25 people in the design and development of a safety-critical positive train control (PTC) system for deployment to an Australian freight rail customer.
- Developed trainborne software intended to provide protection and enforcement for a safeworking system.
- Implemented several major functions, including a safety-critical acknowledgement feature
- Led a test remediation team of 15 engineers who reviewed, modified, and augmented 17,000+ unit tests to better test the code base.
- Moderated and participated in 80+ code reviews spanning the entire codebase.

Technologies: C++ (QNX Neutrino OS), C (TI RTOS), Java, Python, JIRA/FishEye/Crucible

BD Operations -- Informatics Engineer (Mar 2013 – Aug 2014)
- Developed data-driven dashboards and visualizations to provide execs on insight the state of the business.
- Collaborated with product owners, users, and database admins to provide solutions for business needs.
- Led design of a ReSTful API to communicate with an enterprise database application.
- Utilized AngularJS (1.x) with custom templates and directives to create a responsive single-page-application (SPA) as a replacement frontend for an enterprise database application.
- Created multiple jQuery plugins to visualize data and create UI elements.

Technologies: AngularJS, jQuery, Underscore.js, ReST, SharePoint development

C2 Systems -- Software Engineer (Jan 2012 – Mar 2013, Apr 2014 – Present)
- Member of a team tasked with modernizing a C2 product with 30+ years of fielded experience.
- Utilized webservices technology such as IDL, DDS, SOAP, and ReST to integrate complex C2 systems.
- Participated in a human-machine interface (HMI) upgrade on frontend and backend functionality.
- Developed a chat application to facilitate communication and collaboration in a C2 Operations Center.
- Introduced DevOps tooling to streamline development and deployment.

Technologies: C++, Java, Ada, Qt, Mercurial, Git, Packer, Ansible, Vagrant, IDL, DDS, SOAP, ReST