Varun R Gandhi

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Senior software engineer with 7+ years of experience and passion for framework and UI development. Experienced in multiple programming languages, platforms, frameworks and working with large object oriented code bases. Skilled in multi-tasking, project management and working as a key contributor/mentor in cross functional and collaborative teams.

TECHNICAL SKILLS:

- Languages: Java, JavaScript, MATLAB, C++, HTML, CSS
- Libraries/Frameworks: Dojo, Java Swing, JQuery, Bootstrap, QUnit, Boost
- Development Tools: NPM, Grunt, Maven, Make, Shell Scripting, Node, UML
- Version Control: Perforce, CVS, Git
- Operating systems: Macintosh, Windows, Linux/Unix based OS

EXPERIENCE:

Senior UI Platform Engineer, The MathWorks, MA *May 2013 – Present*

- Responsible for gathering requirements, proposing specifications, designing the architecture and implementing new capabilities for MATLAB's UI building framework.
- Developed highly object oriented MATLAB and C++ code for the model and controllers in a large MVC based system.
- Used Java Swing and Web technologies to develop the views for the UI framework.
- Key contributor on the team for architecture and code reviews.
- Led the efforts to develop dialogs, banners, notifications and other re-usable web widgets using a dojo-based framework, which were used by various teams across the company.
  - Implemented using modern JavaScript/HTML5/CSS coding practices.
  - Easy to use, well documented and high quality APIs designed and exposed for use from JavaScript client code or the MATLAB server code.
  - Applied test-driven development techniques using QUnit, FuncUnit and MATLAB-Unit test frameworks to provide reliable software.
- Painted a vision for the next generation graphics user interface that addresses user pains around printing and exporting MATLAB graphics visualizations.
- Enhanced and added support in the UI building framework for high resolution systems.
- Applied agile/lean methodologies to software development.
- Collaborated with cross-functional teams such as QE, Usability and Visual Designers.

UI Platform Engineer, The MathWorks, MA *Sep 2010 – May 2013*

- Responsible for quality improvements and enhancements to MATLAB's GUI building components and utilities.
- Programming and debugging in MATLAB, C++ and Java.
- Explored/prototyped the use HTML5, JavaScript and other web based technologies into the existing legacy Java Swing code base.
- Worked on internationalization of the product to support different spoken/written languages
- Developed robust processes around working with a legacy Java and Java Swing code base.
- Promoted a kanban based agile workflow within the team.

Application Support Engineer, The MathWorks, MA *Jan 2009 – Sep 2010*

- Specializing in the MATLAB Object System and Graphics/GUI areas.
- Gathering and providing customer feedback to development teams for improvements on core MATLAB functionality.
- Designed and developed a GUI to assist customers in setting the 'ScreenPixelsPerInch' property and easily visualize its effects.
- Worked on quality engineering projects to come up with tests and test procedures for Mapping Toolbox graphical contouring functions.
- Developed a diagnostic and information gathering utility for customers and internal use to handle issues seen with printing in MATLAB.

Application Support Engineer Intern, The MathWorks, MA *Jan 2008 – July 2008*

- Responsible for technical support for MATLAB on the MATLAB-Math support team.
- Gained experience in the area of MATLAB programming, Graphics, Image Processing and Graphical User Interface building tools and other core MATLAB functionalities.

Graduate Trainee, Searock Precision Machinery, Bangalore, India *Jan 2006 – July 2006*

- Worked in the area of tooling design for diesel engine fuel pump housings & Exhaust Manifold of earth moving equipment
- Successfully designed jigs & fixtures for manufacturing the components on a vertical machining centre and gained knowledge of process and design failure mode event analysis.

PUBLICATIONS AND RESEARCH:

Graduate Research Assistant, Vibrations Control and Electro-mechanics laboratory (VCEL), Texas A&M University. *Jan 2007 – May 2009*

- Research paper published on "High Temperature, Permanent Magnet Biased, Fault Tolerant Homopolar Magnetic Bearing Development", for the International Gas Turbine Institute (IGTI) at the 2008 ASME Turbo Expo in Germany.

Chief Engineer, Formula SAE, R.V. College of Engineering, India *Sep 2004 – Dec 2005*

- Designed & fabricated a formula style race car based on the Formula-Society of Automotive Engineers (FSAE) specification with key contributions in the chassis, body and suspension design using Pro-E and ANSYS.
- Successfully participated at the inter-university FSAE competition held in Melbourne, Australia.

Undergraduate research project, G.T.R.E. (Gas Turbine Research Establishment), Defense R&D Organization, Bangalore, India *Mar 2005 – June 2005*

- Computations Modal Analysis of a gas turbine compressor blade (experimental and computational)

EDUCATION:

- Master of Science (MS) in Mechanical Engineering (Design & Control Systems) at Texas A&M University. GPA: 3.4 *Aug 2006 – May 2009*
- Bachelor of Engineering (B.E.) In Mechanical Engineering, R.V. College of Engineering, Bangalore, India. Grade: First Class with Distinction – GPA: 3.7 *Aug 2001 – June 2005*