VIJAY KRISHNA PALEPU

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EDUCATION

University of California, Irvine, USA   September 2012 - Current
Ph.D., Software Engineering, Current GPA: 3.99

University of Pune, India   August 2006 - July 2010
B.Engg., Computer Engineering, First Class with Distinction

EXPERIENCE

Spider Lab, University of California, Irvine   June 2012 - Current
Graduate Student Researcher   *Irvine, CA, USA*

· Working on novel approaches to visualize, analyze and model program executions.
· Developed software infrastructure for the instrumentation, analysis and exploration of Java program executions.
· *Languages and Tools:* Java, ASM Bytecode Manipulation Library (asm.ow2.org), Javascript, D3.js.

University of California, Irvine   January 2012 - March 2012
Graduate Student Researcher   *Irvine, CA, USA*

· Worked on a design project for an internet game based on the U.S. Presidential Elections.
· *Languages and Tools:* HotGloo Wireframing tool.

Indigo Architects   August 2010 - June 2011
Software Developer   *Pune, MH, India*

· Part of the Operations team of Zeus Travel Office Product Team. Built applications to monitor product behavior.
· *Languages and Tools:* C#, XAML, Silverlight, WCF.

Persistent Systems   October 2009 - March 2010
Project Intern   *Pune, MH, India*

· Developed an Eclipse Plug-in to statically reverse engineer a Sequence Diagram for Java Projects to aid code comprehension. Final Year Project at University of Pune, Army Institute of Technology.
· *Languages and Tools:* Java, Eclipse Standard Widget Toolkit, Eclipse Java Development Tooling (JDT).

PUBLICATIONS

· **Palepu, Vijay Krishna** and Jones, James, "**Discriminating Influences among Instructions in a Dynamic Slice**," 2014 29th IEEE International Conference on Automated Software Engineering (ASE), 15-19 September 2014.
· **Palepu, Vijay Krishna**; Xu, Guoqing and Jones, James, "**Improving Efficiency of Dynamic Analysis with Dynamic Dependence Summaries**," 2013 28th IEEE International Conference on Automated Software Engineering (ASE), 11-15 November 2013.
· **Palepu, Vijay Krishna** and Jones, James, "**Visualizing Constituent Behaviors within Executions**," 2013 1st IEEE International Working Conference on Software Visualization (VISSOFT), 27-28 September 2013.
· Martie, Lee; **Palepu, Vijay Krishna**; Sajnani, Hitesh and Lopes, Cristina, "**Trendy bugs: Topic trends in the Android bug reports**," 2012 9th IEEE Working Conference on Mining Software Repositories (MSR), 2-3 June 2012.

SOFTWARE PROJECTS

· IOTA: Java Bytecode instrumentation framework, based on ASM (asm.ow2.org), for runtime program analysis.
· PL241 COMPILER: SSA-based optimizing compiler; supports register allocation and code generation for DLX (pronounced 'Deluxe') RISC processor architecture. Code: `https://bitbucket.org/vpalepu/pl241-compiler`

- THE BRAIN: Visualization of software executions. Demo: `http://www.ics.uci.edu/~vpalepu/site/brain2.html`
- Interactive tutorial for Hypothesis testing & t-Tests. Demo: `http://www.ics.uci.edu/~vpalepu/205project/`
- Lambda Calculus Interpreter for alpha & beta reductions. Code: `https://gist.github.com/VijayKrishna/5180292`
- JAVA CODE TO SEQUENCE DIAGRAM CONVERTER: Eclipse plug-in to statically reverse engineer Java code snippets to Sequence Diagrams.

AWARDS

- SIGSOFT TRAVEL GRANT, ACM, 2014.
- INFORMATICS FELLOWSHIP, Department of Informatics, University of California, Irvine, 2013.
- AGS TRAVEL GRANT, University of California, Irvine, 2013.
- CHAIR'S AWARD, Department of Informatics, University of California, Irvine, 2012.
- BRONZE MEDAL AND SCHOLARSHIP AWARD, Department of Computer Sciences, Army Institute of Technology, University of Pune, 2011.

TECHNICAL STRENGTHS

Programming & Scripting Languages	Java, Javascript, Matlab, Scheme, R.
Markup Languages	HTML, LaTeX, Markdown, SVG.
Frameworks	ASM (asm.ow2.org), D3.js, Twitter Bootstrap.

TEACHING

- Guest Speaker on Testing and Verifying Software Behavior, Software Testing and Anslysis (UCI, Spring 2014, Graduate course)
- Guest Speaker on QA and Testing, Introduction to Software Engineering (UCI, Summer'13)
- Teaching Assistant, Senior Design Project (UCI, Fall'12, Winter'13, Spring'13)
- Reader, Concepts in Programming Languages II (UCI, Spring'12)
- Reader, Senior Design Project (UCI, Spring'12)

PROFESSIONAL AFFILIATIONS

- Student member of the Association for Computing Machinery (ACM) and the Special Interest Group on Software Engineering (ACM SIGSOFT).
- Student member of the Institute for Software Research (ISR), University of California, Irvine.

GRADUATE COURSE WORK

Software Engineering; User Interface Design and Evaluation; Requirements Engineering; Information Retrieval; Software Performance and Reliability; Analysis of Programming Languages; Machine Learning; Software Architecture; Software Testing and Analysis; Quantitative Methods; Advanced Compiler Construction.