Vijay Krishna Palepu

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EDUCATION

UC IRVINE

Ph.D., Software Engineering
2012 - Current | Irvine, CA, USA
GPA: 3.99
- Informatics Fellowship, 2013
- Chair's Award, 2012

UNIVERSITY OF PUNE

Army Institute of Technology
B.Engg., Computer Engineering
2006 - 2010 | Pune, MH, India
First Class with Distinction
- AWES Scholarship Award, 2011
- Final Year Bronze Medal, 2010

COURSEWORK

GRADUATE

- 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

TEACHING

- **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)

SKILLS

PROGRAMMING

Over 5,000 lines:
Java • Java Bytecode Re-engineering
Over 1,000 lines:
LaTeX • HTML & CSS • Javascript • Shell
Familiar:
C++ • C# • R • Matlab • D3.js • Twitter Bootstrap

EXPERIENCE

SPIDER LAB, UC IRVINE | Graduate Student Researcher

June 2012 - Current | Irvine, CA, USA
- Developing novel approaches and infrastrucutre to visualize & analyze software executions.

MICROSOFT | Software Engineering Intern

June 2015 - September 2015 | Redmond, WA, USA
- Worked on the Microsoft Word application.

INDIGO ARCHITECTS | Software Developer

August 2010 - June 2011 | Pune, MH, India
- Engineered product behavior monitoring of a travel-domain software suite.

PERSISTENT SYSTEMS | Project Intern

October 2009 - March 2010 | Pune, MH, India
- Built Eclipse Plug-in to reverse engineer Java projects to UML Sequence Diagrams.

RESEARCH PUBLICATIONS

- **Palepu** and Jones, **"Revealing Runtime Features and Constituent Behaviors within Software"**, 2015, IEEE Int'l Working Conference on Software Visualization.
- Reddy, Kim, **Palepu** and Jones, **"SPIDER SENSE: Software-Engineering, Networked, System Evaluation"**, 2015, IEEE Int'l Working Conference on Software Visualization.
- **Palepu** and Jones, **"Discriminating Influences among Instructions in a Dynamic Slice"**, 2014, IEEE Int'l Conference on Automated Software Engineering.
- **Palepu**; Xu and Jones, **"Improving Efficiency of Dynamic Analysis with Dynamic Dependence Summaries"**, 2013, IEEE Int'l Conference on Automated Software Engineering.
- **Palepu** and Jones, **"Visualizing Constituent Behaviors within Executions"**, 2013, IEEE Int'l Working Conference on Software Visualization.
- Martie; **Palepu**; Sajnani and Lopes, **"Trendy bugs: Topic trends in the Android bug reports"**, 2012, IEEE Int'l Working Conference on Mining Software Repositories.

SOFTWARE PROJECTS

- **Cerebro**: Interactive visualization of software program executions.
  `http://spideruci.github.io/cerebro/`
- **Blinky**: Java Bytecode instrumentation framework for runtime program analysis.
  `https://github.com/spideruci/blinky`
- **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`

TALKS

- **"Discriminating Influences among Instructions in a Dynamic Slice"**, New Ideas Talk, Automated Software Engineering, Sweden, Summer 2014.
- **"Verifying Software Behavior"**, Guest Lecture, Graduate course on Software Testing and Analysis, UCI, Spring 2015.