

# Raymond PL Buse

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arrestedcomputing.com

Research area: Human Factors in Programming Languages and Software Engineering

## Education

2006-present                      The University of Virginia                      Charlottesville, VA

MCS in Computer Science - May 2008

Currently pursuing Ph.D. in Computer Science

Adviser: [Westley R. Weimer](#)

### Selected Coursework:

[Design and Analysis of Programming Languages](#)

[Programming Language Paradigms for Sensor Networks](#)

[Safety Critical Computing](#)

[Temporal Issues in Computing](#)

2002-2006                      The Johns Hopkins University                      Baltimore, MD

B.S. in Computer Science

Adviser: [Yair Amir](#)

## Publications

For more detail on these projects and others see [arrestedcomputing.com](#)

### *Documenting Exceptions Automatically*

Transactions on Software Engineering (TSE) 2009 Special Issue on Exceptions (in-submission) with [Westley Weimer](#).

### *Learning a Metric for Code Readability*

Transactions on Software Engineering (TSE) 2009 Special Issue (Invited Paper) (in-submission) with [Westley Weimer](#).

### *The Road Not Taken: Estimating Path Execution Frequency Statically*

International Conference on Software Engineering (ICSE) 2009 with [Westley Weimer](#)

We present a descriptive statistical model of path frequency based on source code features.

### *A Metric for Software Readability*

International Symposium on Software Testing and Analysis (ISSTA) 2008 with [Westley Weimer](#) – **Best Paper Award**

With data collected from human annotators, we derive associations between a simple set of local code features and human notions of readability.

### *Automatic Documentation Inference for Exceptions*

International Symposium on Software Testing and Analysis (ISSTA) 2008 with [Westley Weimer](#)

We present a fully automated tool that statically infers and characterizes exception-causing conditions in Java programs.

### *Visual Navigation Through Large Directed Graphs and Hypergraphs*

IEEE Symposium on Information Visualization (InfoVis) 2006 with [Jason Eisner et al.](#)

A visualization tool for very large or infinite hypergraphs.

## Activities & Awards

Outstanding Graduate Research Award (2008-2009)

Best Paper Award, ISSTA 2009 for *A Metric for Software Readability*

Computer Science Graduate Student Group (2008-2009)

Organizing graduate student orientation, graduate student liaison to faculty, etc.

Computer Science Theory Lunch Coordinator (2008-present)

ACM-W / Computer Science Diversity Committee Liaison (2009-present)

## Languages

c, c++, c#, Java, OCaml, Python, SQL, PHP, HTML, Matlab & others