Getty D. Ritter

gdritter@infinitenegativeutility.com
(559) 553-5656

Experience

Engineer and Researcher
Galois Inc., Portland, OR

July 2012 - Present

- Worked as an engineer and researcher on a wide variety of different research projects, notably including the following:
  - Built static analysis tools for C on top of the Frama-C verification framework which worked in concert with an experimental video game front-end designed to enable non-technical users to produce proofs of software correctness.
  - Contributed to ShareMonad, a Haskell implementation of shared multi-party computation and a domain-specific embedded language designed for specifying and facilitating those computations.
  - Extended the QEMU hardware emulator to support an experimental extended instruction set designed to impede Return-Oriented Programming attacks, and patched a compiler tool-chain, Linux kernel, and parts of a typical Linux user-land to support this architecture in order to facilitate "practical" emulated testing of its security properties.
  - Developed the compiler for the experimental Grappa probabilistic programming language, designed to compile an abstract model specification into a generic representation which in turn can be executed using a wide variety of different probabilistic techniques.
  - Patched the CAmkES component framework for the seL4 microkernel to support Rust projects, and patched preliminary seL4 support into the Rust standard library for several target platforms.

Graduate Teaching Fellow
University of Oregon, Eugene, OR

January 2011 - May 2012

- Taught various courses at varying levels of expertise, ranging from basic introductory material to advanced material about programming language theory and operating systems.

Developer
Noisy Creatures, Berkeley, CA

July 2010 - September 2010

- Designed and implemented iPad-based video game.

Lecturer & Teacher
University of California Berkeley, Berkeley, CA

June 2009 - August 2009

- Lectured and ran labs for CS3L — Introduction to Symbolic Programming.

Tutor
University of California Berkeley Self-Paced Center, Berkeley, CA

September 2007 - May 2010

- Tutored students in a one-on-one environment to teach a wide variety of programming languages and environments.
- From 2009 to 2010, also worked as Head Tutor, developing new curricula, projects, and tests for the center.

Education	**B.A. Linguistics & equivalent of B.A. Computer Science**
	Graduated May 2010
	University of California, Berkeley
	Berkeley, California

M.S. Computer and Information Science
Graduated June 2012
University of Oregon
Eugene, Oregon

Skills

Proficient with:	C, Haskell, Java, JavaScript, OCaml, Python, Rust, Scheme, SML, UNIX/Linux
Some experience with:	Assembly (x86, x86_64, ARM), C++, Common Lisp, Erlang, Go, PHP, Ruby, Scala, seL4
Spoken languages:	English fluently; some Mandarin, Italian, Russian, and Esperanto