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# Ryan Thomas Flannery

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## EDUCATION

**University of Cincinnati, Cincinnati, OH (Overall GPA: 3.8/4.0)**

**Ph.D. in Computer Science, College of Engineering** Expected 2011/12

Research Goal: Towards new methods of static software analysis using recent developments in Descriptive Complexity and Abstract State Machines.

**B.S. in Computer Science, College of Engineering** June 2004

Senior Thesis: Using genetic algorithms to create a competent Go playing program.

**Minor in Pure Mathematics, College of Arts & Sciences** June 2004

## PROFESSIONAL EXPERIENCE

**Aug/2005 - Mar/2007: Software Developer, SINAPSE Consulting, Cincinnati, OH**

- Developed a framework for E-Commerce and online-community websites, serving 12 clients, 3 for local city and county governments, geared towards promoting small-business development.
- Developed and maintained numerous application modules for all client websites, including authentication, mailing, forums, image gallery, and more.
- Responsible for instituting version control, a standard coding style guide, and creating a 3-tier environment (development, staging, and production) for all software development.

**Sept/2001 - Mar/2003: E-Commerce Developer, Emerson Electric Co., Burlington, KY**

- Developed and maintained numerous order-entry applications (both online and client-based) that were responsible for processing between \$3 and \$5 million in sales per day.
- Lead a 2 month long project overseeing 2 other developers to design extensive application usage reporting tools used throughout much of the company's software.
- Developed an online application allowing the company to quickly and easily build online forms to be used for both employees and clients.
- Responsible for creating various application, data, and communication libraries used in applications throughout the company.

**Sept/2000 - Mar/2001: Software Developer, General Electric, Washington, WV**

- Automated the creation of daily financial reports detailing all financial aspects of GE Plastics used daily by senior business administration. Previously it required 3 individuals working 5 hours each day.
- Designed and implemented several 6- $\sigma$  project management and reporting tools used by 90+ company-wide projects and their managers.
- Developed course material for, and taught, a class to 12 GE developers on Active Server Pages (ASP) programming and database integration.

**2002 - Present: Active Open Source Developer and Contributor**

- Created and actively maintain **vitunes**, a UNIX equivalent of iTunes written in C with a curses interface and vi-like interaction. Used by hundreds of vi-users.
- Created and actively maintain **phpSymon**, a PHP application to collect and display information gathered by symon/symux software. Used by system administrators for quick overviews of computer & network statistics.
- Numerous other desktop applications for the collection and viewing of various system information.
- All of my projects are available on my website, listed above.

## TECHNICAL EXPERTISE

**Programming, Extensive Experience** with C & C++ (12+ years), PHP (4+ years)  
**Programming, Competent** with Java (2+ years), ASP (2+ years), C#, Haskell, UNIX Shell Scripting  
**Database Technologies** Extensive experience interacting with MySQL, PostgreSQL, Oracle.  
**Web Technologies** Extensive Experience developing standards-compliant HTML (not yet HTML5), CSS, JavaScript & jQuery.  
**Operating Systems** Have been using and developing on OpenBSD & Linux for over 12 years.  
Competent with Mac OS X and other \*BSD's.  
**System Administration** Competent with the setup and maintenance of web servers (Apache, lighttpd), databases (MySQL, PostgreSQL), and mail servers (qmail, OpenSMTPD).  
**Version Control** Experienced with CVS, Git, and Mercurial.  
**Formal Methods** Experienced with ACL2 and Isabella/HOL.

## AWARDS & HONORS

**2009, 2010** UC Summer Research Fellowship.  
**2008, Summer** Engineering Professor of the Quarter (First and only graduate student to receive this).  
**2004 - 2008** Ohio Board of Regents Ph.D. Fellowship.  
**2004 - 2010** UC Graduate Scholarship.  
**2004** UC Award for Outstanding Senior Design Project in Computer Science.  
**1999 - 2004** UC College of Engineering Dean's Honor List 9/12 quarters.  
**2001** General Electric IT Speed Award for Digitization Efforts.  
**2001** General Electric IT Accomplishment Awards (received three of them).  
**2001** Inducted into the Golden Key National Honor Society.  
**1999** Covington Catholic High School Computer Science Award.  
**1999** Covington Catholic High School Service Award for Technical Assistance.

## PAPERS & TEACHING EXPERIENCE

**2006** "Unfounded Sets and Autarkies," accepted to the Logic and Search Heuristics workshop during 2006 Federated Logic Conference (FLoC, 16 August 2006), by John Schlipf and Ryan Flannery.  
**2009, 2010** Taught a 2 week Summer Camp in computer science for local high school students with no prior programming experience. Students learned Java, graphics, animation, and game design.  
**2007, 2008** Taught Computer Science I (University of Cincinnati) where students learned C++ and introductory methods of software development.  
For the 2008 class I was awarded *Engineering Professor of the Quarter*.  
**2007 - 2011** Teaching Assistant in 10 courses, including 600+ level graduate courses.  
**2003 - 2004** Organized and tutored a series of Cooperative Learning courses to compliment the first-year Computer Science curriculum at UC.  
**1998 - 1999** Lead instructor for an entry level Karate class, 20+ students.

## ACADEMIC & EXTRACURRICULAR INVOLVEMENT

**Organizer** of the UC Logic & FOM (Foundations of Mathematics) research/seminar group, organized with the UC departments of Computer Science, Mathematics, and Philosophy (2006-2008).  
**President** of UC-LaRC, the University of Cincinnati Laboratory for Recreational Computing (2002-2003).  
**Member** of ASL, the Association for Symbolic Logic.  
**Member** of UC-FreeOS, the UC Free Operating-Systems advocacy group.  
**1999-2000** Sun Microsystems Student Technology Associate Representative (SunSTAR) for UC, giving presentations on various Sun technologies.  
**1<sup>st</sup> Degree Black Belt** in Seiei Kan, Ko Sutemi Karate since 1997.

*References Available Upon Request*