

Jonathan L. Dautrich Jr.

Objective To apply skills I have acquired through education and prior work experience in an environment that promotes active research and continued learning, enabling me to make significant and practical contributions within the computer science field.

Education **9/2008 – Present University of California, Riverside Riverside, CA**
Pursuing a Degree of Doctor of Philosophy, Computer Science, 2013

- 4.0 Final GPA (Coursework Complete)
- Graduate level courses taken include:
 - Data Mining
 - Machine Learning
 - Computer Security
 - Database Management Systems
 - Theory of Computation
 - Design & Analysis of Algorithms
 - Computational Biology Algorithms
 - Software Verification Techniques

9/2005 – 6/2008 California State Polytechnic University Pomona, CA
Bachelor of Science, Computer Science, June 2008

Minor in Mathematics

- Summa Cum Laude, 3.97 GPA
- Courses taken include:
 - Graph Theory
 - Secure Communications
 - Proofs, Set Theory & Logic
 - Cognitive Science
 - Artificial Intelligence
 - Laplace Transforms & Fourier Series

9/2002 – 6/2005 Riverside Community College Riverside, CA
Associate in Arts, Associate in Science, June 2005

Emphasis in Computer Science / Information Systems

- Great Distinction, 3.95 GPA

Academic Research

Current Work

- Currently researching privacy loss in encrypted outsourced databases in the *database as a service* model. Includes work on the extension of predicate encryption to realize private server-side range queries and analyses on extraction of ordering information from query result sets. (2009-2011)

Papers and Reports (<http://www.jjldj.com/projects.html>)

- *Finding Baseball/Softball Fields in Aerial Photos*. Data mining course project using Matlab to identify fields in Google Earth aerial photographs. (December 2009)
- *A Partially Order-Preserving Index Scheme* for Encrypted Data. Research in querying over encrypted data for directed studies in security. (July 2009)
- *Multi-Class Steganalysis*. Machine learning course research project distinguishing images embedded using reversible steganographic schemes. (June 2009)
- *Minimizing Corrective Data in Difference Expansion Embedding*. Security course research project improving reversible steganography. (March 2009)
- Implementation of a dynamic schema interconnection framework for the ASyMTRe multi-robot coordination system. (Individual Senior Project, Spring/Summer 2008)

Personal**Volunteer & Leadership Experience**

- Youth leader in the Awana youth discipleship program (Eleventh Year)
- Election Officer / Inspector (Precinct Leader) (Six Elections)

Work Experience

7/2009 – Present University of California, Riverside Riverside, CA
Graduate Student Researcher / Teaching Assistant

- Research work with Professor China V. Ravishankar on steganography and on privacy in outsourced databases.
- Teaching assistant for undergraduate computer security. Responsible for teaching lab, preparing assignments, and grading exams. Course project utilized the OpenSSL C library. (Fall 2009, Fall 2010)

5/2006 – 9/2008 Thales-Raytheon Systems Fullerton, CA
Software Engineer / Intern

- J2EE application software development – design, coding, and testing
- Software integration engineer
- Support, configuration, and testing centered on an ITF lab, a large-scale J2EE command and control application, and a large array of COTS products

6/2004 – 5/2006 Material Supply Inc. Fontana, CA
System Support Technician

- Network and desktop support and maintenance for over 130 Windows-based systems at branches in California, Nevada, and Arizona
- System-wide remote software installations and patch deployments

Awards & Honors**Scholarship & Fellowship Awards**

- NSF GRFP Honorable Mention (April 2010)
- DoD SMART Scholarship Program Recommended Semi-Finalist (March 2010)
- GAANN Fellowship Recipient (Computer Science – UCR) (December 2009)
- Chancellor's Distinguished Fellowship (Computer Science – UCR) (March 2008)
- Boeing Scholarship (Computer Science – Cal Poly Pomona) (2006, 2007, 2008)
- Verizon Scholarship (Computer Science – Cal Poly Pomona) (2007)

Achievement Awards & Recognitions

- Flag Bearer, Computer Science Department, College of Science Commencement Exercises (Cal Poly Pomona) (June 2008)
- First Place in Five Cal Poly Pomona Programming Contests (2005-2008)
- Team Achievement Awards (Thales-Raytheon Systems) (2007, 2008)
- Raytheon Six Sigma™ Specialist (2006)