

Russell Leonard Melick
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EDUCATION

Bachelor of Science, Computer Science
Harvey Mudd College, Claremont, CA, expected May 2011
Humanities Concentration: German

COMPUTER SKILLS

Languages & Software: Java, C++, Matlab, Python
Operating Systems: Windows, Mac OS X, Linux

EXPERIENCE

- Researcher* Summer 2009
UCLA Applied Mathematics REU, Los Angeles, CA
- Group was exploring open problems in atmospheric science
 - Implemented and evaluated several numerical PDE solvers
 - Worked towards expanding past research to three dimensions
- Researcher* Spring 2009
Sketch Recognition Group, Harvey Mudd College, Claremont CA
- Improved real time sketch recognition algorithms
 - Created automated testing scripts
- Researcher* Summer/Winter 2008
Ariel Corporation, Mt. Vernon, OH
- World leader in reciprocating natural gas compressors
 - Developed simulation code for modeling bearing orbits and piston rings
 - Created graphical user interface for bearing simulation code
- Research Assistant* Summer 2007
Kenyon College Economics, Gambier, OH
- Geocoded addresses of manicurist's licenses for stats of CA and MI

ACTIVITIES

- Project Manager* Nov. 2008–Present
Mudd Software Development Club
- Club created to serve large scale software needs of other campus groups
 - Working on creating an online voting system for student elections
 - Designed to expose students to real world software methodologies
- Team Leader* Feb. 2009
MCM Modeling Competition
- Four day team competition creating mathematical models of real world systems
 - Developed traffic circle simulator in Matlab and produced paper describing methodology, limitations, and results
 - Paper was ranked top four among 1100 international submissions
 - Presented results at MathFest 2009 and were published in UMAP Journal

PUBLICATIONS

“One Ring to Rule Them All: The Optimization of Traffic Circles”, with Aaron Abromowitz and Andrea Levy, *The UMAP Journal*, 30.3, 2009, pp. 247 – 260.

LEADERSHIP

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|---|-----------------|
| <i>ACM Officer, Claremont College ACM Student Chapter</i> | 2009–10 |
| <i>Dorm President, Dorm Treasurer, Case Dorm, Harvey Mudd College</i> | 2008–10 |
| <i>Group Leader and Participant, Project Noah, New Orleans, LA</i> | Summers 2006–08 |
- Summer church mission trip to Louisiana to help hurricane Katrina recovery