

**Russell Leonard Melick**  
340 East Foothill Blvd Claremont, CA 91711  
(740) 504-1372 rmelick@hmc.edu  
<http://cs.hmc.edu/~rmelick>

## 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

<i>Researcher</i> UCLA Applied Mathematics REU, Los Angeles, CA	Summer 2009
• Group was exploring open problems in atmospheric science	
• Implemented and evaluated several numerical PDE solvers	
• Worked towards expanding past research to three dimensions	
 <i>Researcher</i> Sketch Recognition Group, Harvey Mudd College, Claremont CA	Spring 2009
• Improved real time sketch recognition algorithms	
• Created automated testing scripts	
 <i>Researcher</i> Ariel Corporation, Mt. Vernon, OH	Summer/Winter 2008
• 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	
 <i>Research Assistant</i> Kenyon College Economics, Gambier, OH	Summer 2007
• Geocoded addresses of manicurist's licenses for stats of CA and MI	

## ACTIVITIES

<i>Project Manager</i> Mudd Software Development Club	Nov. 2008–Present
• 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	
 <i>Team Leader</i> MCM Modeling Competition	Feb. 2009
• 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**

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