



# Timothy J Dunn

COMPUTER SCIENTIST - ATHLETE - PROGRAMMER - BOOKWORM

✉ me.timd1@gmail.com | 🏠 timd.one | 📷 TimD1 | 📱 TimD1 | 🌐 timdone

## EDUCATION

<b>University of Michigan</b> , Ann Arbor MI	2019-Present
• <b>PhD Pre-Candidate</b> in Computer Science	
<b>Clarkson University</b> , Potsdam NY	2015-2019
• <b>Honors BS in Electrical Engineering and Computer Science</b>	
• <b>GPA: 3.99</b> (out of 4.00), Presidential Scholar all semesters	

## PREVIOUS INTERNSHIPS

<b>Assured Information Security (AIS)</b>	Summer 2019
• Integrated virtual Trusted Platform Module into OpenXT	
• vTPM provides additional security features to hypervisor VMs	
<b>Technical University of Darmstadt</b>	Summer 2018
• Research internship in Germany, international DAAD RISE program	
• Wrote semidefinite optimization problem solver in CUDA C++	
<b>Los Alamos National Laboratory</b>	Summer 2017
• Worked on a multidisciplinary computational x-ray imaging team	
• Ported a Ptychography algorithm from CUDA C++ to OpenMP	
• Implemented conjugate gradient descent for position refinement	

## PUBLICATIONS

<b>T. Dunn</b> , S. Banerjee, N. Banerjee, "User-Independent Detection of Swipe Pressure using a Thermal Camera for Natural Surface Interaction", IEEE 20 <sup>th</sup> International Workshop on Multimedia and Signal Processing (MMSP 2018), Vancouver, Canada, 2018. <b>Top 5% Paper Award</b>	2018
<b>T. Dunn</b> , N. Banerjee, S. Banerjee, "GPU Acceleration of Document Similarity Measures for Automated Bug Triaging", 1 <sup>st</sup> International Workshop on Software Faults (IWSF 2016), Ottawa, Canada, 2016.	2016

## MAJOR PROJECTS

- Currently developing smart position-aware juggling balls	2018-2019
- Designed and built a semi-autonomous quadcopter (with four other students)	2018
- Made a chat server (with AES encryption from scratch) in Python	2018
- Built a PID controller from op amps, 555 timers, resistors, and capacitors	2017
- Implemented a Pascal to Intel x86 Assembly compiler in C	2016-2017
- Wrote a C++ ray tracer from scratch, handling anti-aliasing and reflections	2016

## SKILLS

**Programming:** C++, Python, MATLAB, CUDA, C, x86 Assembly, Java, MySQL  
**Familiar with:**  $\LaTeX$ , Linux, Git, Vim, GDB, CMake, BitBake

## LEADERSHIP & TEAMWORK

<b>Teaching Assistant</b> , HP102 MATLAB Programming Class	2016-2019
<b>Captain/Member</b> , Clarkson Varsity Nordic Skiing Team	2015-2019
<b>Webmaster</b> , Clarkson Honors Program	2016-2018
<b>President</b> , Clarkson Juggling Club	2016-2018
• Qualified juggling 7 balls, working on juggling 5 clubs	
<b>Class of 2019 Representative</b> , Clarkson Honors Program	2016
<b>Member</b> , Clarkson University Outing Club (CUOC)	2015-2018
• Have hiked all of the 46 Adirondack High Peaks	

## SCHOLARSHIPS & AWARDS

William A. Dart Award ( <i>presented to one EE senior at Clarkson</i> )	2019
Phalanx Commendable Leadership Award	2019
David M. Craig Outstanding Honors Graduate Award ( <i>voted by peers</i> )	2019
Barry M. Goldwater Scholarship ( <i>for undergraduate research</i> )	2017
Lynch & Searleman Award ( <i>presented to one CS sophomore at Clarkson</i> )	2017
USCSA All-American Scholar Athlete, First Team	2015-2019