

THOMAS DUDZIK

EDUCATION

Massachusetts Institute of Technology

Cambridge, MA

*Intended Candidate for S.B. in Electrical Engineering & Computer Science – 4.8/5.0 GPA**Class of 2019*

Relevant Coursework: • Electrical Engineering & Computer Science I • Differential Equations
• Algorithms I • Programming I • Electromagnetism • Linear Algebra

Westminster School

Simsbury, CT

*Valedictorian - 97.0/100.0 (unweighted), SAT: 2340 – M: 800, CR: 740, W: 800**Class of 2015*

Awards: CollegeBoard National AP Scholar, Yale Book Award

Relevant Coursework: • AP Computer Science • AP Economics (Macro & Micro) • Multivariable Calculus

EXPERIENCE

Philips Research North America

Cambridge, MA

*Machine Learning Research Intern – Acute Care Solutions (ACS) Lab**June. 2016 - Present*

Prototyping various reinforcement learning algorithms for use in behavior change applications.
Researching machine learning methods to better adapt to individuals for improved efficacy and user engagement.
Developing flexible Python framework for simple algorithm implementation, benchmarking, and evaluation.

NASA Biologic Analog Science Associated with Lava Terrains (BASALT)

Cambridge, MA

*Undergraduate Researcher – MIT Man Vehicle Lab**Feb. 2016 - Present*

Optimizing features for the SEXTANT API to allow for planning of efficient extravehicular traverses.
Integrating resource-based path-optimization into the widely-utilized xGDS software using Python.
Working together and testing the Minerva software package with astronauts from the Ames Research Center.

MIT Computer Science and Artificial Intelligence Lab (CSAIL)

Cambridge, MA

*Undergraduate Researcher – Rinard Lab**Jan. 2016 – Feb. 2016*

Created framework in C/C++ that keeps track of tainted memory locations during code execution.
Targeted x86 architecture to perform security analysis on programs in real time.

Discovery to Cure

New Haven, CT

*Biomedical Research Intern – Yale School of Medicine**Summer 2014*

Researched gene expression of the Type III Secretion System in the bacterial strain *P. aeruginosa*.
Transformed and cultured bacteria with fluorescent proteins to track gene translation.

LEADERSHIP AND ACTIVITIES

NodeUI*Nov. 2015**HackHarvard Hackathon Group Project*

Created an intuitive, gesture-based UI focused on ease of use through integration of a Leap Motion sensor.
First place winner in the Pure CS category at HackHarvard 2015.

Cycling*2011 - Present**Member of MIT Men's Cycling Team*

Current racer on the MIT Men's Cycling Team, previous captain of the Garmin-Sharp National Development Team.
Earned bronze at US National Championships, competed internationally in Belgium, Poland, Bahamas, Canada.

Varsity Men's Swimming*2012 - 2015**Captain of the Westminster School Men's Swim Team*

Led four-man freestyle relay team to a successful 1st place finish at the 2014 NEPSAC DII Championships.
Member of the 200 yd. medley relay team that broke the school record during 2014 season.

SKILLS AND INTERESTS

Python • C/C++ • Java • Git • Word • Excel • PowerPoint • HTML/CSS

English • Polish • Spanish • Rubik's Cubes • Cycling • Alto Saxophone