

## THOMAS DUDZIK

EDUCATION

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**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 &amp; Micro) • Multivariable Calculus

EXPERIENCE

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**Philips Research North America**

Cambridge, MA

*Machine Learning Research Intern**June. 2016 - Present*

Prototyping various reinforcement learning algorithms for use in behavior change applications.  
Creating framework in Python for rapid prototyping...  
Benchmarking and visualizations.

**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

*Yale School of Medicine – Biomedical Research Intern**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

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**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 1<sup>st</sup> 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

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

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