www.tomdudzik.me

THOMAS DUDZIK

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EDUCATION

Massachusetts Institute of Technology Cambridge, MA
Candidate for S.B. in Electrical Engineering & Computer Science – 4.9/5.0 GPA *Class of 2019*
Honor Societies: Eta Kappa Nu, Tau Beta Pi
Relevant Coursework: • Algorithms I • Math for Computer Science • Computation Structures • Machine Learning • Software Construction • Systems Engineering • Computer Vision

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

EXPERIENCE

MIT Toyota-CSAIL Joint Research Center Cambridge, MA
Undergraduate Researcher – Rus Lab *Fall 2017 - Present*
Creating a novel verification system for deep neural networks in the context of autonomous driving.
Implementing viewpoint transformation of camera frames to adjust sensor inputs according to calculated error.

Blockstream Mountain View, CA
Software Engineering Intern – Core Infrastructure Team *Summer 2017*
Developed an entirely new blockchain format focused on scalability, user privacy, and fungibility.
Implemented the protocol as an open-source Bitcoin sidechain, significantly decreasing blockchain disk usage.
Worked on a large-scale decentralized cryptographic system that handles over 300,000 transactions per day.

Philips Cambridge, MA
Software Engineering Intern – Acute Care Solutions (ACS) Department *Summer 2016*
Prototyped various reinforcement and deep learning algorithms for use in behavior change applications/healthcare.
Researched machine learning methods to better adapt to individuals for improved efficacy and user engagement.
Developed 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 *Spring 2016*
Optimized features for the SEXTANT API to allow for planning of efficient extravehicular traverses.
Integrated resource-based path-optimization into the widely-utilized xGDS software using Python.

LEADERSHIP, ACTIVITIES, & PROJECTS

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 & INTERESTS

Python • C/C++ • Java • Git • HTML/CSS • Theano/TensorFlow • Blockchain

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