www.tomdudzik.me

THOMAS DUDZIK

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(860) 748 9004

EDUCATION

Massachusetts Institute of Technology — Cambridge, MA
Candidate for S.B. in Electrical Engineering & Computer Science – 4.9/5.0 GPA — *Class of 2019*
Relevant Coursework: • Algorithms I • Math for Computer Science • Computation Structures • Machine Learning • Software Construction • Systems Engineering • Deep-Learning for Self-Driving Cars

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

Blockstream — Mountain View, CA
Software Engineering Intern – Core Infrastructure Team — *Summer 2017*
Developing an entirely new blockchain format focused on scalability, user privacy, and fungibility.
Implementing the protocol as a Bitcoin sidechain resulting in an approximately 80% decrease in blockchain size.
Working 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.

MIT Computer Science and Artificial Intelligence Lab (CSAIL) — Cambridge, MA
Undergraduate Researcher – Rinard Lab — *Winter 2015*
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.

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

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