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THOMAS DUDZIK

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EDUCATION

Massachusetts Institute of Technology (MIT)

Cambridge, MA

Candidate for M.Eng in Electrical Engineering & Computer Science – 5.0/5.0 GPA

Class of 2019

Candidate for S.B. in Electrical Engineering & Computer Science, Minor in Mathematics – 4.9/5.0 GPA

Honor Societies: Eta Kappa Nu, Tau Beta Pi

Relevant Coursework: • Algorithms I & II • Discrete Math • Linear Algebra • Machine Learning • Computer Vision
• Software Construction • OS Engineering • Cryptography • Probability & Statistics

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

J.P. Morgan

New York, NY

Markets Analyst – FX E-Trading

Summer 2018

Improved price discovery algorithm for G10 FX forwards via statistical lead/lag analysis of broker time-series data.

Developed a chatbot to identify broker quotes indicating live price updates using NLP and machine learning techniques.

Toyota-CSAIL Joint Research Center

Cambridge, MA

Undergraduate Researcher – Rus Lab

Fall 2017 – Spring 2018

Created a novel verification system to evaluate autonomous driving capabilities of deep neural network architectures.

Implemented viewpoint transformation of camera frames to adjust car 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, decreasing disk and network usage by tens of gigabytes.

Improved 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.

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 out of over 500 competitors.

Cycling

2011 - Present

Member of MIT Men's Cycling Team

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.

SKILLS & INTERESTS

Python • C/C++ • Java • MATLAB • Git • TensorFlow/Keras • OpenCV • Blockchain

English • Polish • Spanish • Rubik's Cubes • Cycling • DJ • Alto Saxophone • MIT Bitcoin Club