

LUKE S. METZ

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62 Boylston Street, Apt 801

Boston, MA 02116

EDUCATION

B.S., May, 2105 Franklin W. Olin College of Engineering, Needham, MA

Major in Engineering with a Concentration in Computing; Cumulative GPA 3.95

COURSEWORK

Engineering	Computer Science	Related Coursework
Principles of Engineering	Software Design	Entrepreneurship
Modeling and Simulation of the Physical World	Probability and Statistics: a Computational Approach	User-Oriented Collaborative Design
Differential Equations and Linear Algebra	Artificial Intelligence	Material Science
Human Factors in Interface Design	Programming Language Design and Implementation	Modern Biology
Discrete Math		
Numerical Methods and Scientific Computing		
Senior Design Capstone		

RESEARCH EXPERIENCE

Research Assistant, Olin Robotics and Bioinspiration (ORB) Lab, led by Professor Aaron Hoover (2012 - 2015). Project: Underactuated robot turning via reinforcement learning. Created smarter control algorithms to allow a small hexapod robot driven by a single motor to turn more efficiently. Became the first user and teaching assistant of a small motion capture studio, developed custom firmware for an embedded microcontroller, built many a miniature robot, developed and optimized data processing and collection pipelines, and worked with reinforcement learning and optimization techniques as well as various visualization strategies to both explore and to draw conclusions about the best ways to make these cardboard robots turn.

Research Assistant to Olin Visiting Designer Scott Harris, 2011 - 2013 (co-founder of SolidWorks). Project: Human computer interaction using zSpace 3D display. Built software and did user testing to identify new ways to interact with computers.

WORK EXPERIENCE

Research Developer, Indico Data Solutions. Boston, MA. May 2015 - present
Work on developing products for text and image application using modern machine learning techniques.

Research and Development Intern, Onshape. Boston, MA. Summer 2013, 2014
The first intern hired for a growing, well-capitalized start-up looking to revolutionize CAD software. Research and development intern working in graphics, user interface, backend and other areas.

Software Development Intern, Pivotal Labs. New York, NY. Summer 2012
Worked on iOS application for a client.

PROJECTS

Cardboard Quadcopter Capable of Autonomous Flight
Designed and built, with a team of four, a cardboard quadcopter with on-board raspberry pi and webcam. Received over 250,000 view on Instructables documenting the process.

Spaceless Wallet
Created an ultra thin wallet made of Kapton that was successfully Kickstarted (110% funded) and produced at scale.

Paranormal: 2D Normal Map Editor for Games
Designed and built a 2D normal map editor for 2D games. Implements Photoshop-like interface specifically designed for the creation of normal maps.

SKILLS

Languages: C++, Python, Rust, Objective-C, Swift, CUDA, SML, OCaml, Javascript

Technologies: Linux, Mac, Git, Motion Capture

HONORS and ACHIEVEMENTS

Olin Merit Scholarship 50% Tuition, four year

PUBLICATIONS

Radford, Alec, Metz, Luke, and Chintala, Soumith. Unsupervised Representation Learning with Deep Convolutional Generative Adversarial Networks. Under review as conference paper at ICLR 2016. arXiv:1511.06434, 2015.