

Eric Wadkins

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Education	Massachusetts Institute of Technology (MIT) Candidate for Bachelor of Science in Computer Science and Engineering Current GPA: 4.5	Cambridge, MA June 2018
Skills	Programming: Java, C++, JavaScript, HTML, CSS, Python, Node.js, MATLAB, Arduino, Android, GLSL Libraries/Databases/Architectures: MongoDB, OpenCV, OpenGL, TensorFlow, ANTLR, NumPy, jQuery, Durandal, Bootstrap, jqPlot, Kendo UI, REST, SOAP, XML, Express, Apache Tomcat, Linux Collaboration/Other: Git, Eclipse, Gradle, Trello Experience researching and experimenting with neural network models, classifiers, and AI systems. Experience designing, implementing, testing, and maintaining general applications, web applications, and libraries, as well as conducting the research required to do so.	
Experience	Quantum Photonics Lab, Research Laboratory of Electronics (RLE) <i>Undergraduate Researcher</i> The ultimate goal of the Quantum Photonics Laboratory is to build a practical quantum computer. My research for the Quantum Photonics Laboratory includes developing machine learning and computer vision-enabled algorithms to automate processes in the lab, such as detection and examination of auxiliary information near nitrogen-vacancy centers in diamond.	Cambridge Feb. 2017 - Present
	InfoLab, Computer Science and Artificial Intelligence Laboratory (CSAIL) <i>Undergraduate Researcher</i> The InfoLab Group conducts research on AI, natural language processing and multimedia information access, with the goal of bridging the gap between human and machine learning via computer-human interaction, as well as computer vision and machine learning methods. My research includes a system to determine homographic scenes based on physical properties of the objects in the scenes, as well as the ability to query the system about a certain scene in natural language.	Cambridge Sept. - Dec. 2016
	Diameter Health <i>Software Engineering Intern</i> As an intern at Diameter Health, I designed and developed full-stack applications and worked with proprietary algorithms that analyze data to reveal insights useful for healthcare organizations and clinicians. I was heavily involved in the design, implementation, and testing of software, as well as the tailoring of applications to the needs of individual clients. <ul style="list-style-type: none">• Designed, implemented, and tested an advanced free-text medication sig parser which uses natural language processing techniques such as tokenization and POS tagging.• Developed a full-stack application for Partners Healthcare as part of a research study, funded by the National Institutes of Health, to determine whether automated predictive tools improve a clinician's ability to assess the risk of Chronic Kidney Disease in patients with early kidney disease.• Created many other tools and scripts to analyze healthcare organizations and their data, as well as automate services for clinicians and hospital administrators.	Newton, MA June 2015 – Feb. 2017
Projects	Request, Java Library A library used for sending HTTP and HTTPS requests with many data management functions. OpenGL Game Engine, C++/OpenGL Project A custom game engine created in C++ using OpenGL. Ray Casting Simulation, C++/OpenCV Project An AI capable of ray casting, spatial mapping, Bayesian filtering, and pathfinding. <u>To learn more about me and some of my other projects, visit:</u> http://www.ericwadkins.com	
Activities	HackMIT, MIT Battlecode Competition, MIT First Generation Program	