Eric Wadkins

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Education Massachusetts Institute of Technology (MIT)

Cambridge, MA

Candidate for Bachelor of Science in Computer Science and Engineering

June 2018

Current GPA: 4.4

Winthrop High School: GPA: 4.6

Winthrop, MA

Skills

Programming: C++, Java, JavaScript, HTML, CSS, Python, Node.js, Android, Linux, MATLAB, GLSL **Libraries:** OpenCV, OpenGL, ANTLR, NumPy, jQuery, Angular.js/Durandal, Bootstrap, jqPlot, Kendo UI, Express, npm, Apache Tomcat

Databases: MongoDB

Collaboration/Other: Git, Gradle, Eclipse, Trello

Experience designing, implementing, testing, and maintaining general applications, web applications, and libraries, as well as conducting the research required to do so.

Experience

InfoLab, Computer Science and Artificial Intelligence Laboratory (CSAIL)

Cambridge

Undergraduate Researcher

Aug. 2016 - Present

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 (CHI), as well as computer vision and machine learning methods.

Diameter Health Newton, MA

Software Engineering Intern

June 2015 - Present

As an intern at Diameter Health for two years, 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've been heavily involved in the design, implementation, and testing of software, as well as tailoring applications to the needs of individual clients.

- Designed, implemented, and tested a free-text medication sig parser, using natural language processing (NLP) techniques such as tokenization and POS tagging.
- Developed a full-stack application for Partners Healthcare as part of a research study to determine whether this automated predictive tool improves a clinician's ability to assess the risk of Chronic Kidney Disease.
- Worked as part of a team developing an application to analyze the quality of Continuity of Care Documents (CCDs) to improve documentation for healthcare organizations.
- Created a full-stack Return on Investment (ROI) tool for the Sales and Marketing division in order to increase sales and allow for the visualization of potential return on investment.
- Created scripts in Node.js to interface with database systems and automate the use of Diameter Health's other services for clients.

Projects

Request, Java Library

A library used for sending HTTP and HTTPS requests with many data management functions designed to make sending requests and parsing the response as simple as possible.

OpenGL Game Engine, C++/OpenGL Project

A custom game engine created in C++ using OpenGL. This includes support for dynamic lighting, fractal algorithms to generate terrain, and an object rendering system for static and dynamic objects.

Ray Casting Simulation, C++/OpenCV Project

An AI simulation using ray casting, spatial mapping, Bayesian filtering, and pathfinding to perform tasks such as estimating its location on a map and navigating towards a goal through an unknown maze in real time.

To learn more about me and some of my projects, visit: http://www.ericwadkins.com

Activities

MIT First Generation Program, MIT Robotics Club, HackMIT, MIT Battlecode Competition