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Jacob Haip

Address:
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Education

Massachusetts Institute of Technology – *Cambridge, MA*
- Candidate for B.S. in Electrical Engineering & Computer Science 2015 – GPA 4.6/5.0

Relevant Coursework:
In progress: Circuits & Electronics, Digital Communication, Computational Structures
Past subjects: Algorithms, Machine Learning, Software Construction, Engineering Innovation & Design, Fund. of Computational Media Design, Differential Equations, Science Writing

Experience

Tumblr – *New York, NY – Summer 2013*
- Rewrote many JavaScript functionalities so redundant libraries could be removed, reducing page load times and unifying the code base
- Responsible for reviewing my team's code pushes and responding to feedback
- Deployed to production almost daily

Storytelling Machines – *Cambridge, MA – Summer 2012*
- Improved the functionality of a novel online movie creation system, focusing on cross browser and legacy support for animations and effects in HTML5 and CSS
- Helped bring the product from being demo-able to market testable
- With the company being only 5 people, learned to work towards the larger goals of the project

6.470 Web Programming Competition – *MIT – January 2013*
- Developed a website where users could visualize the "social graph" surrounding them
- Managed time to meet weekly progress deadlines
- Experienced all stages of development from concept drawings to deployment and user testing

MASLAB Autonomous Robotics Competition – *MIT – January 2014*
- Served as the project lead and a mechanical designer of a 5 person team which built and programmed an autonomous robot for the competition – 3rd Overall + Award for use of ROS
- Worked with another mechanical designer to develop a complete CAD assembly of our robot in Solidworks which we used to laser cut and machine the robot from aluminum and acrylic

Lab Assistant for Intro to Computer Science – *MIT – Fall 2012*
- Mentored hundreds of students with all levels of computer science backgrounds

Mediated Matter – *MIT Media Lab – Cambridge, MA – Fall 2012*
- Developed a python application where users could adjust and visualize parameters affecting the conversion of 3D models into a 3D printing format
- Expanded the capabilities of the lab by allowing them to leverage existing 3D modeling programs instead of coding the object's shape by hand

Notable Projects

Multi Touch Desks – *Fredericktown, OH – 2011-2012*
- Led a team of five students to build a functional desk-sized multi touch screen
- Pricing, ordering, and testing of electrical components, ~$500 budget
- Built initial prototype alone from a torn apart monitor, IR lasers, and a modified webcam
- Weeks of research on best practices for construction and obtaining parts within budget

Mind Painting – *MIT – Fall 2011*
- Transformed the signals from an EEG headset into a seismograph style "mind painting"
- EEG → Java program → Arduino → Servos → Funnels controlling direction of dripping paint

Skills & Activities

- **Knowledgeable in:** JavaScript, Python, Java, HTML/CSS, Git, Ruby, Ruby on Rails, jQuery, Arduino, Responsive Web Design, Solidworks
- **Experience with:** PHP, CoffeeScript, C/C++, OpenCV, Wood & Metal Machining
- TechX – Student Relations – helping MIT students build their personal project ideas
- Pi Lambda Phi – Treasurer, House Manager, Social Chair