

# Harry Rickards

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Education	<p><b>Massachusetts Institute of Technology</b> Cambridge, Massachusetts <i>June 2018 (Sophomore)</i> B.Sc. Candidate, Mathematics (18) &amp; Electrical Engineering &amp; Computer Science (6-2), GPA: 4.5/5.0 Relevant coursework: Computational Linguistics, Computational Cognitive Science</p> <p><b>Uckfield Community Technology College</b> East Sussex, United Kingdom <i>September 2007 - May 2014</i> A Levels: Maths A*, Further Maths A*, Physics A*, Electronics A*, Chemistry A, ICT A</p>
Experience	<p><b>Amida Techology Solutions - Washington, D.C.</b> (Software Developer) <i>May 2015 - present</i></p> <ul style="list-style-type: none"><li>• Amida uses technology solutions (primarily a MEAN stack) to solve real data problems</li><li>• Created the backend of OrangeRx, a mobile medication adherence app currently in a 10,000-patient trial</li><li>• Liased with overseas team working on the frontend</li></ul> <p><b>MIT Museum Studio, Holocam Project - Boston</b> <i>February 2015 - May 2015</i></p> <ul style="list-style-type: none"><li>• Developed a camera system that can be physically moved (4 degrees of freedom) around a hologram in the Museum, allowing remote users to control it in real-time via a web interface</li><li>• Worked with a wide range of technologies, from AVR C to Rails</li></ul> <p><b>Open Access Button</b> (Lead App Developer) <i>July 2014 - May 2015</i></p> <ul style="list-style-type: none"><li>• Performed freelance work for this not-for-profit promoting open access to scientific research</li><li>• Developed Android mobile app, Rails web app and Firefox extension for advocacy purposes</li></ul> <p><b>Rewired State - London</b> (Freelance Data Developer) <i>July 2011 - January 2015</i></p> <ul style="list-style-type: none"><li>• Performed data exploration, prototyping and ideation</li><li>• Worked with a range of clients from governmental, corporate and not-for-profit sectors</li></ul> <p><b>Various Freelancing Projects</b> <i>2011 - 2013</i></p> <ul style="list-style-type: none"><li>• Developed Moodle TV Integration plugin for UCTC</li><li>• Worked on gov.uk government portal with Government Digital Service</li></ul>
Projects	<p><b>Shor's Circuits</b> <i>Summer 2014</i> Created a web-based graphical platform for symbolically simulating quantum circuits</p> <p><b>Bioniscope</b> <i>Spring 2014</i> Developed the full stack (PCB to Android) of a digital sampling oscilloscope connected to a tablet interface over Bluetooth</p> <p><b>Hackathons</b> Prizes and experience at more than a dozen hackathons. Notable recent ones include:</p> <ul style="list-style-type: none"><li>• <b>Young Rewired State</b> Honourary Winner; development of a comprehensive social-media donation platform ('donate by retweet'); 2014. Mentor and finale judge for 1300 participants; 2015. Centre Organizer; 2016. Assorted awards; 2010-2013.</li><li>• <b>National Hack the Government</b> Winner; applied motion detection algorithms to create a restaurant hygiene mobile app that interacts with the user completely passively (through vibrations); 2014</li><li>• <b>Research Councils UK Gateway to Research</b> Winner; used machine learning to link entrepreneurs and small businesses to academic researchers; 2014</li><li>• <b>Hack for Social Impact</b> Winner; combined financial information with Corporate Social Responsibility data to allow 'moral investment'; 2014</li></ul>
Skills	<p><b>Languages:</b> Javascript, Ruby, Python, C, Java, HTML/CSS, Haskell, Objective C, Verilog</p> <p><b>Tools:</b> vim, tmux, git, MongoDB, many APIs</p> <p><b>Frameworks:</b> Node, Express, Mongoose, Rails, Android, Moodle, Arduino</p> <p><b>Operating Systems:</b> Linux (Arch, Debian), OS X, Microsoft Windows</p> <p><b>Computational Software:</b> Mathematica, Matlab, R, Octave</p> <p><b>Machine Learning</b> Multiple years experience; online Stanford course</p> <p><b>Quantum Computing</b> Online UC Berkeley course; practical experience (Shor's Circuits)</p> <p><b>Hardware</b> 3D printers (and 3D printer development), oscilloscope design, quadcopters, laser cutters</p>