# Jeremy Silver

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## Reed College BA, Physics. Portland, Oregon.

May 2011

- Thesis on the use of numerical differential equation solving and genetic algorithms to simulate and optimize human movement.
- Course work in calculus, linear and abstract algebra, scientific computation, electrodynamics, elementary particles, as well as classical, quantum, thermal, and solid-state physics.
- Projects included measuring the temperature dependence of diode reverse bias leakage current, improvised synthesis of fullerenes using a welding power supply, and creation of an interactive computer model simulating the interaction and collision of charged particles.

#### Course Developer Udacity Inc. Mountain View, California.

February 2015–Present

- Created UD867: Gradle for Android and Java, an online course with over 10,000 enrolled students.
- Built a forthcoming Java game development course in partnership with Amazon.

#### Course Manager Udacity Inc. Mountain View, California.

April 2014–February 2015

- Mentored students in numerous courses including Intro to Data Science, Developing Android Apps, Software Architecture and Design, and Intro to Hadoop and MapReduce.
- Lead testing and quality assurance on Intro to Machine Learning, Data Visualization, and Model Building and Validation.

#### Hardware Laboratory Intern Allion USA, Portland, Oregon.

January 2014-April 2014

- Built stages of a machine vision pipeline for real-time processing of high speed camera output.
- Invented a class of ternary/n-ary codes with desirable Hamming distance properties.

### Scientific Applications Intern Apple Inc. Portland, Oregon.

June 2011–August 2013

- Developed novel algorithms with the Advanced Computation Group in the fields of sound compression, image compression, image enhancement, machine vision, and error correction coding.
- Created 3D scanning and printing laboratory and wrote tools for interactive markup of 3D meshes.
- Coinvented, prototyped, and wrote patent documentation for a novel image magnification algorithm.
  Collaborated on a real-time OpenCL implementation of the algorithm.

#### Requalification Supervisor Reed Research Reactor, Portland, Oregon.

May 2010-May 2011

- Created and administered written and practical exams to the staff, gave training and requalification lectures, and founded an enrichment lecture series.

#### Senior Reactor Operator Reed Research Reactor, Portland, Oregon.

August 2009–May 2011

- Performed and supervised reactor power changes, calibrated radiation monitors, and performed neutron activation analysis experiments.
- Participated in control rod and fuel inspections, thermal power calibration, and refueling operations. Organized and performed recovery of a dropped fuel element.

#### Skills

- Python, Java, C, C++, Objective-C, Swift, SQL, HTML, CSS, and JavaScript.
- Android, Google AppEngine, Polymer, OpenGL/CL/CV, LibGDX, SKLearn, and NLTK.
- Git, Mercurial, Gradle, Mathematica, MATLAB, LabVIEW, and I⁴TEX.