# Helen Hastings

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Abstract problem solving, programming, leadership through compelling dedication, inquisitiveness and quick self-starting.

**EDUCATION**

**Stanford University** Class of 2016
BS Candidate in Computer Science. GPA: 3.98
**Thomas Jefferson High School for Science & Technology**
Alexandria, VA. Cumulative GPA: 4.51

**WORK EXPERIENCE**

**Google - Software Engineering Intern** (2014, 12 weeks)

- Contributed to Search Infrastructure Team, specifically the index-building system of web search.
- Wrote two controllers (end-to-end logic in the index-building Framework) to create tables for querying from corpora of web documents stored in index repositories.
- My project eliminated a need for an outdated and space-inefficient step in creating said tables, and allowed the tables to be more quickly brought up-to-date by forming them more efficiently and more often.
- Worked in C++ and various Google-specific configuration languages.

**Nicira Inc. by VMware - Software Engineering Intern** (2013, 12 weeks)

- Contributed to Nicira's NVP (Network Virtualization Platform), now VMware's NSX.
- Wrote support for NVP's controller cluster to be able to add and remove controllers from the cluster without a shutdown and restart of the cluster's coordination system, which was previously required.
- This functionality affects every use case of the product, and showed seconds of improvement in just bare minimum testing.
- Wrote patch to open source Apache ZooKeeper, a Distributed Systems library used by NVP, to enable functionality required for my project.

**Employee at Stanford's Virtual Reality Lab** (2013-2014 school year, 10 hours / week)

- Python development of virtual environments used in lab (see vhil.stanford.edu)
- Used Vizard, Unity, and various 3D object editing software

**Network Security, U.S. Naval Research Laboratory – Intern** (2011-12, total 17 weeks) (Washington, D.C. - nrl.navy.mil/chacs/)

- Added to a PDF Parser to decrypt PDFs of varying encryptions, unpack PDFs from XML, and analyze PDFs for vulnerabilities using a JavaScript interpreter.
- Wrote Python program to analyze packed binaries for malware.
- Wrote Python program to compare Portable Executable files with Fuzzy Hashing.

**Teacher's Assistant, High School Java Class** (2010, 6 weeks)

- Prepared and taught lessons of Java and OOP, worked 1:1 with students.

**LEADERSHIP**

**she++** [Co-Director & CFO – sheplusplus.org]
A nonprofit working to rebrand the image of what it means to be a technologist.
**Pilot** [Bay Area Coordinator - gopilot.org]
**Stanford Tau Beta Pi Engineering Honor Society** [Professional Development Chair]
**Student Body President** of high school of 1800 students

**PROGRAMMING**

- Well versed in C++, C, Python, Java, Ruby on Rails, JavaScript, HTML, CSS, MATLAB.
- Acquainted with Node.js, jQuery, PHP, MySQL, AJAX, C#

**AWARDS & HONORS**

- NCWIT Aspirations in Computing National Award Winner, 2012 (35 in nation – ncwit.org)
- George Washington University Engineering Award (2012)