

## Education

- > **Yale University, New Haven, CT.**
- > Bachelor of Science in **Computer Science**, expected May 2016.
- > Bachelor of Science in **Applied Mathematics**, expected May 2016.
- > **GPA: 3.57**
- > **International Baccalaureate Diploma: Total Score 42/45**

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## Activities/ Work Experience

- > **Engineering Intern at Two Sigma Investments** (June 2015 - August 2015):
  - » Member of the team that develops **Beaker**, an **open-source** notebook-style development environment for data scientists composed of an **AngularJS frontend** and a **Jetty (Java) server**.
  - » Single developer of a **multi-platform** native version of Beaker which supports closer interaction with the operating system's user-interface using **Electron JS**, a framework for native **NodeJS** applications.
- > **CS50 Teaching Fellow** (Fall 2015):
  - » Part of CS50's staff, a joint Harvard-Yale introductory course to Computer Science.
  - » Responsible for **teaching** and grading a section of thirteen students.
  - » **Held office hours to assist students with questions and debugging.**
- > **Data Visualization Programmer** at the Yale Center for Environmental Law and Policy (May 2014 – Present):
  - » Developed web based visualizations and applications built in **PHP** and **Javascript** with an extensive use of **jQuery**, **D3** and **CartoDB**.

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## Academic Projects

- > Built a **distributed, fault-tolerant, quorum-based key-value store** tailored for low-powered devices, such as robot swarms.
- > Developed a **compiler** for the Tiger programming language in Standard ML, a **functional programming language**.
- > Built a **decentralized file-sharing application** using **C++**. Project focused on the optimization of large sequential file transfers from multiple peers, through a design based on **Merkle tree** structures.
- > Completed JOS' kernel code, an **exokernel operating System** by MIT, designed to teach students through a hands-on coding approach.
- > Currently doing **data analysis research** on spectrograph calibration techniques for Doppler spectroscopy exoplanet surveys.

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## Skills

- > **Advanced: C, Javascript.**
- > Intermediate: C++, Java, Golang, Standard ML, Python, R.
- > Experience integrating **SQL** databases onto various projects.
- > Five years experience with **UNIX-like** systems and the **UNIX shell**.

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## Awards

- > Selected as a C. Prescott Davis Scholar by Columbia University, a title awarded to Columbia's most promising applicants in the field of Engineering.
- > 1<sup>st</sup> place physics, 2<sup>nd</sup> place mathematics at the Tecnológico de Monterrey's Science Contest 2012, which attracts hundreds of students across Mexico.
- > High School Honorific Mention of Excellence, offered an Excellence Scholarship for college studies at the ITESM.