

# Douglas P. Chen

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**Current Address:** 1426 Rose Garden Ln, Cupertino, CA 95014

- Education**    **Massachusetts Institute of Technology (Cambridge, MA)** *August 2014 to June 2017*  
GPA 5.0/5.0; Bachelor of Science in Computer Science and Engineering and Minor in Mathematics  
Relevant Coursework: Distributed Systems, Performance Engineering, Design and Analysis of Algorithms, Introduction to Machine Learning, Database Systems, Computer Language Engineering, Operating System Engineering, Network Security, Computer Systems Security, Computer Systems, Probability & Random Variables, Discrete Mathematics
- Monta Vista High School (Cupertino, CA)** *August 2010 to June 2014*  
GPA 4.0/4.0; SAT: 2310/2400
- Experience**    **SpaceX – Propulsion Intern (Hawthorne, CA)** *June 2016 to August 2016*
- Redesigned the communication subsystem in SpaceX’s in-house C++/CUDA computational fluid dynamics software for distributed GPU clusters. Significantly improved performance and scalability of rocket engine combustion simulations running on thousands of networked computers.
  - Developed automated scalability studies in Python for an in-house GPU cluster and the Titan supercomputer. Identified additional optimization opportunities from collected data.
- Microsoft – Azure Machine Learning Intern (Cambridge, MA)** *January 2016*
- Designed, implemented and optimized external sorting and grouping algorithms in C# used to preprocess extremely large datasets in Microsoft’s Azure Machine Learning service.
- Addepar – Software Engineering Intern (Mountain View, CA)** *June 2015 to August 2015*
- Developed a full-stack framework incorporating Dropwizard and Ember.js for quickly building compatible, maintainable and secure internal applications. Built a tool to detect regression bugs.
  - Helped transition backend build and deployment infrastructure from the Gradle build system to Buck, decreasing build times by a factor of ten and improving developer productivity.
- Moka5 – Software Engineering Intern (Redwood City, CA)** *January 2015*
- Implemented and benchmarked several changes in C++ to a transactional virtual disk format’s caching, compression and compaction algorithms, improving read speeds and decreasing internal fragmentation.
- Volunteer Work**    **National Internet Math Olympiad – Webmaster** *June 2010 to Present*
- Developed and maintained a system (<http://internetolympiad.org>) using Ruby on Rails (formerly PHP) to administer and automatically grade several types of math contests with over 5,000 registered users.
- Awards**            UChicago Midwest Trading Competition – 1<sup>st</sup> Place Team *2015*  
USA Mathematics Olympiad Qualifier *2011 and 2013*  
USA Computing Olympiad Gold Division Qualifier *2012*
- Activities**        **Traders@MIT Executive Board** *September 2014 to Present*
- Coordinated corporate relations, logistics and case development for the largest collegiate trading competition in the United States and a weekly seminar and speaker series.
  - Worked on features and performance optimization for an in-house simulated trading platform.
- Skills**              C, C++, Java, Go, CUDA, C#, Python, JavaScript, React, Ember.js, Ruby, Bash, Git, SQL, HTML, CSS