# Vahid Fazel-Rezai

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|---|---|
| Education | **Massachusetts Institute of Technology**, Cambridge, MA        June 2018 |

Electrical Engineering and Computer Science, 5.0 GPA

| 6.01 / Intro EECS | 18.03 / Differential Equations | 18.440 / Probability |
|---|---|---|
| 6.003 / Signals and Systems | 6.004 / Computation Structures | 6.005 / Software Construction |
| 6.006 / Intro Algorithms | 6.036 / Intro Machine Learning | 6.170 / Software Studio |

**Phillips Exeter Academy**, Exeter, NH        June 2014

| Linear Algebra | Electronics | Cryptography | Game Theory | Intro Real Analysis |
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**Work**        **Nasdaq** — *Software Development Intern*        6/15–8/15
Peform customer interviews for, design, and build out backend of new web app
Define decision triggers, code data feed, and benchmark performance of new web dashboard

**Recharge Labs** — *Director of Product Innovation*        12/14–1/15
Research and design charging station with potential for small-scale solar electricity in Nepal

**Art of Problem Solving** — *Grader*        9/14–12/14
Grade and give written feedback for online programming and math problems

**Leadership**        **MSA Mentorship** — *co-director*        2015

**Harvard-MIT Math Tournament** — *webmaster*        2014–2015

**Phillips Exeter Academy Science Bowl Team** — *captain and co-founder*        2012–2014

**Research**        **Space Systems Lab**, MIT        9/14–12/14
Benchmark and improve vision software on SPHERES satellites that merges six frames into 3D cloud

**Seung Kim Lab**, Stanford        3/14–6/14
Cross, dissect, and image new *Drosophila* stock lines with inserted gene for fluorescence

**Program for Research In Mathematics, Engineering and Science**, MIT        2/13–9/13
Establish definitions and classify families of permutations for type of relation not previously studied

**Computational Biochemistry Lab**, Univ. North Dakota        10/11–3/12
Write C program to run simulation of peptide structure in varying conditions and analyze results

**Publications**        Vahid Fazel-Rezai. Equivalence Classes of Permutations Modulo Replacements Between 123 and Two-Integer Patterns. *Electronic Journal of Combinatorics*, 21(2):#P47, 2014.

Presented at 2014 Mathematical Association of America Undergraduate Student Poster Session

| Awards | | |
|---|---|---|
| William Lowell Putnam Mathematical Competition | 50th place, Honorable Mention | 2015 |
| MIT Web Programming Competition | 4th Place & Most Responsive Design | 2015 |
| Asian Pacific Math Olympiad | Bronze Medal | 2014 |
| Canadian Math Olympiad | 7th place, Honorable Mention | 2014 |
| Intel Science Talent Search | Semifinalist | 2014 |
| Intel International Science and Engineering Fair | Fourth Award in Mathematics | 2011 |
| USA Junior Math Olympiad | 6th place, Winner | 2011 |

**Languages**        Python, C++, JavaScript, Node, Angular, HTML, CSS, SQL, MongoDB, Java, Git, MATLAB, LaTeX, French

**Projects**        http://vfazel.me