David Fan

http://davidfancv.com
dfan@princeton.edu | 908.392.0562

EDUCATION

PRINCETON UNIVERSITY
B.S.E in Computer Science
Cert. in Computational Bio
2015-2019
GPA: 3.7/4.0

MONTGOMERY HIGH SCHOOL
High Honors
2011-2015
GPA: 4.0/4.0 | SAT: 2390 | SAT II (perfect): Biology, Chemistry, Math

SKILLS

PROGRAMMING
Proficient:
Java
Working:
Python • SQL • Javascript • HTML/CSS • LaTeX• Wordpress • Git

LAB
Gel electrophoresis, high-temperature transport (i.e. resistivity) measurements, depth-profiling analysis, applications of graph theory to materials, *Drosophila* fly work, paper writing, poster presenting

COURSEWORK

CURRENT
Algorithms and Data Structures
Linear Algebra
General Physics II
Fundamentals of Statistics
Economic Inequality Seminar

COMPLETED
Introduction to Computer Science
Multivariable Calculus
General Physics I
Writing Seminar
Intensive Third-Year Modern Chinese I

HIGH SCHOOL
Advanced Placement (AP): Computer Science, Physics C Mechanics/Electricity and Magnetism, Calculus AB/BC, Chemistry, Biology, English Language + Literature, Micro/Macroeconomics, US History, Enviro. Science, Chinese, Psych.

MY LINKS

Github:// **dfan97**
LinkedIn:// **davidfan97**
My Site:// **davidfancv**

RESEARCH AND JOURNAL PUBLICATIONS

NEW JERSEY MEDICAL SCHOOL | Paid Research Intern
Jun. 2014 – Aug. 2014 | Dept. of Cell Biology and Molecular Medicine
Explored effects of Ras GTP-RAF-MEK-ERK signaling pathway in *Drosophila* fruit flies on organismal + organ senescence. Conducted lifespan + stress assays on transgenic flies and in-vivo heartbeat measurements. My data is published in Figures 5+7.
(Aging - Sept. 2015): ***Heart-specific Rpd3 downregulation enhances cardiac function and longevity.***

RUTGERS UNIVERSITY PHYSICS | Paid Research Intern
Jun. 2013 – Aug. 2013 | Center for Emergent Materials
Depth-profiled topological defect distribution in rare-earth hexagonal manganites annealed from above ferroelectrical critical point to provide experimental basis for derivation of vortex-antivortex correlation function. My data is published in Figure 3.
(Nature Physics - Dec. 2014): ***Topological defects as relics of emergent continuous symmetry and Higgs condensation of disorder in ferroelectrics.***

PERSONAL PROJECTS

STAYFRIENDZ | HackPrinceton 2015
- Web app that reminds you to eat with people you haven't seen in a while.
- Uses Express.js, Postgre SQL, Facebook Graph API; hosted on Heroku

CHARITOURNEY | BattleHack NYC 2015 (click link)
- Web app that features charities in brackets to win funds from the public.
- Built on Node.js + Postgre SQL framework and Javascript, Jade and CSS

SHADE | AP Computer Science Final Project
- Simple platformer game using Java that incorporates multi-class inheritance.

WORK EXPERIENCE

5ETEK (SECOND YEAR STARTUP) | Partner + Web Developer
Jun. 2015 – current | Skillman, NJ
- Developed growth and marketing strategies, launched outreach campaign at local high schools, rewrote 5 year company mission statement and wrote competition grant applications.
- Developed step-by-step circuitry modules for 5eTEK's proprietary platform. Incorporated into STEM curriculum for local schools
- Built showcase website for community projects using Wordpress and PHP/HTML/CSS.

YU'S ELITE CENTER | Instructor
Apr. 2015 - current | Bridgewater, NJ
- Teach fast-paced Science Olympiad competition prep to middle schoolers.
- I individually develop all curriculum for the class.

AWARDS AND HONORS

2016	School	Princeton Innovation Magazine 25 under 25 Award
2015	National	Intel Science Talent Search (STS) Semifinalist
2015	National	USA Biology Olympiad (USABO) Semifinalist
2015	School	MHS Visionary Award for STEM Outreach
2015	top 0.1%	National Merit Scholarship Winner
2015	State	NJ Science Olympiad Gold Medalist (x4): 2011, 2013-15
		NJ Science Olympiad Top 4 Team 2010-2015
2014	80/1000	Governor's School of Engineering and Tech. Scholar