

David Fan

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EDUCATION

PRINCETON UNIVERSITY

B.S.E IN COMPUTER SCIENCE
CERT. IN COMPUTATIONAL BIO
2015-2019
GPA: 3.8/4.0 (midterm)

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 •
L^AT_EX • Wordpress • Git

LAB

Gel electrophoresis, high-temperature
resistivity measurement, crystal
depth-profiling analysis, *Drosophila* fly
work, paper writing, poster presenting

COURSEWORK

CURRENT

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

SPRING SEMESTER

Algorithms and Data Structures
Linear Algebra
General Physics II
Fundamentals of Statistics

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, Environmental Science, Chinese,
Psych.

MY LINKS

Github:// [dfan97](#)
LinkedIn:// [davidfan97](#)

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

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
2014	10 th /200	Merck Science Day Competition