

# Jennings Zhang

STUDENT WITH A PASSION FOR BIOMEDICAL SCIENCES, COMPUTER SECURITY, AND SOFTWARE ENGINEERING

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## Education

### Thomas S. Wootton High School

Rockville, Maryland

CUMULATIVE UNWEIGHTED GPA: 3.58. WEIGHTED (OUT OF 5): 4.40

Graduation date: May 2018

<b>Math</b>	AP BC Calculus (5), Multi-variable calculus and differential equations (in progress)
<b>Sciences</b>	H. Physics, AP Chemistry (in progress), AP Biology (5), Anatomy and Physiology (in progress)
<b>Social Studies</b>	AP Government and Politics (5), AP Micro/Macroeconomics (5, 5)
<b>Technology</b>	Computer LAN Management – CISCO Network Engineering (in progress)
<b>Programming 3</b>	Algorithmic analysis, advanced data structures, multi-threading, networks programming, intro to C.

## Additional Education

### EDX MASSIVE OPEN ONLINE COURSES (MOOC)

Aug 2016	<b>Becoming an Entrepreneur</b> — Product formulation and market strategy	MIT LaunchX
Mar 2017	<b>DAT208x Introduction to Python for Data Science</b> — numpy, matplotlib, pandas	Microsoft

### UNIVERSITY OF MARYLAND: DEPARTMENT OF FIRE PROTECTION ENGINEERING

Fall 2016	<b>Introduction to Math and Physics through Fire Dynamics</b>
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### MONTGOMERY COLLEGE: DUAL ENROLLMENT

Fall 2017	<b>Computer Security</b> — CompTIA Security+	CMSC 260
Spring 2018	<b>Microbiology</b> — Lab + lecture, focus on bacteriology and immunology (in progress)	BIOL 210

## Experience

### aimHI

Food and Drug Administration

#### PRODUCT MANAGER

Summer 2016

- Coordinated project scope within a mock start-up environment.
- Used Android Studio to create wireframes for a mobile medical app to assist patients living with postural orthostatic tachycardia syndrome (POTS).

### The Johns Hopkins Hospital

Department of Neurology

#### SHADOW

Summer 2017

- Shadowed under the guidance of Dr. Daniel B. Drachman and Dr. Andrea M. Corse.
- Assisted doctors with patient care and EMG nerve conduction studies.
- Experienced with patient interaction and treatment of neuromuscular disease.

## High School Extracurricular Activities

### Musical Pit Orchestra — Trumpet

2014-2015

### Debate Team — public forum

2014 - 2017

Competed in monthly "public forum" style debates: research and oral presentation.

### Wootton Red Team — Website: <https://twlinux.github.io/>

2017 - 2018

Founder of after-school cyber-security club. Hosts weekly lessons on the topic of Linux software and penetration testing.

## Research

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### Siemens Math and Science Competition

*Regional Semifinalist*

#### ENVIRONMENTAL SCIENCE

*Summer 2015*

- Performed *ab initio* density functional theory (DFT) calculations with ABINIT to calculate adsorption energies of select toxic gases onto the monolayers silicene, black (alpha) phosphorene, and blue (beta) phosphore (a theoretical allotrope).
- Evaluated the potential applications of new materials technology to resolving environmental issues such as air pollution by toxic gas remediation.

## Technical Skills

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**GNU/Linux** System administration on Arch Linux, Ubuntu, and Fedora

**Web Stack** HTML5, CSS3, ES6 JavaScript, npm/yarn, Express, webpack, Preact (similar to Facebook's React)

**Git & Github** source version control

**Java** object oriented programming and concurrency

**LaTeX** document composition

## Open-source Projects

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*I develop web projects in my free time. Code is available on Github.*

### Mind Matter

[jennydaman/mindmatter](#)

- An educational Chrome extension. Description and prototype available from the Chrome Web Store.
- Front-end JavaScript technologies include Preact and Webpack.

### Let's Talk!

[twlinux/lets-talk](#)

- Intentionally vulnerable website for beginners to learn about basic code injection vulnerabilities.
- Front-end designed with materialize-css and jQuery.
- Express and MySQL back-end supported by containers and docker-compose.
- Shared to reddit, more than 200 upvotes on /r/HowToHack and 9 stars on Github.

### TWLinux

[twlinux/twlinux.github.io](#)

- Collection of concise guides about concepts regarding Linux and cyber-security.
- Hosted on Github pages, based on the jekyll theme daattali/beautiful-jekyll.
- Contributed several pull requests to upstream repository, related to CSS bugfixes, CSS customization, and use of Docker.