

# Jennings Zhang

BIOMEDICAL SCIENCES · COMPUTER SECURITY

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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> |
|-----------|---|

### 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.