# 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

**Math** AP BC Calculus (5), Multi-variable calculus and differential equations (in progress)

**Sciences** H. Physics, AP Chemistry (in progress), AP Biology (5), Anatomy and Physiology (in progress)

**Social Studies** AP Government and Politics (5), AP Micro/Macroeconomics (5, 5)

**Technology** Computer LAN Management – CISCO Network Engineering (in progress)

**Programming 3** Algorithmic analysis, advanced data structures, multi-threading, networks programming, intro to C.

### Additional Education \_

EDX MASSIVE OPEN ONLINE COURSES (MOOC)

Aug 2016 **Becoming an Entrepreneur** — Product formulation and market strategy *MIT LaunchX* 

Mar 2017 DAT208x Introduction to Python for Data Science — numpy, matplotlib, pandas Microsoft

University of Maryland: Department of Fire Protection Engineering

Fall 2016 Introduction to Math and Physics through Fire Dynamics

MONTGOMERY COLLEGE: DUAL ENROLLMENT

Fall 2017 Computer Security — CompTIA Security+ CMSC 260

Spring 2018 Microbiology — 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 neuromusclar disease.

## **High School Extracirricular 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.

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Research

#### **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 theoredical alleotrope).

• Evaluated the potential applications of new materials technology to resolving environmental issues such as air pollution by toxic gas remediation.

## Technical Skills\_

**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 \_\_\_\_\_

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.
- Started project to help myself to both learn about web development and to practice medical vocabulary.
- 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 ¡Query.
- Express and MySQL back-end supported by containers and docker-compose.
- More than 200 upvotes on Reddit and 9 stars on Github.

TWLinux twlinux.qithub.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.