

HENRY CHEN

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EDUCATION

University of Maryland

College of Computer, Mathematical, and Natural Sciences

Bachelor of Science, Computer Science, Major GPA: 4.0/4.0

Bachelor of Science, Statistics, Major GPA: N.A/4.0

College Park, MD

Cumulative GPA: 3.94

Expected May 2020

ACT: 36/36

Public Leadership Program, College Park Scholars

August 2017 – Present

- Manage fundraising and advocacy to improve high school graduation rates in Prince George's County Public Schools

Top Performer, Capital One SWE Summit Challenge

November 2017

- One of 40 students nationwide invited to the Capital One SWE Summit for Winter 2018 after their MindSumo challenge

Wolfram Alpha Award, MedHacks 2017

September 2017

- Placed top 15 in the Johns Hopkins Medical Hackathon with an app that identifies pills to warn users of potential side effects

SKILLS

Advanced in: Java, Python, C, JavaScript (D3, Node.js, Firebase, Bootstrap), OCaml, Ruby, MATLAB, HTML, CSS

Familiar with: Assembly (MIPS), Rust, SQL

Software: Eclipse, IntelliJ, LaTeX, Logism, Arduino

WORK EXPERIENCE

National Institute of Standards and Technology (<https://github.com/usnistgov/PasswordVizTool/>)

Gaithersburg, MD

IT Laboratory Summer Intern

June 2016 – August 2016

- Assisted in publicizing *What's a Special Character Anyway? Effects of Ambiguous Terminology in Password Rules*
- Designed and created Java software to analyze data sets of over 8,000 passwords
- Programmed JavaScript scripts to automate data analysis using the D3 library
- Used by NIST researchers to condense and conceptualize study data

Private Tutor

Rockville, MD

Afterschool Tutor

September 2014 – September 2016

- Tutored high school student for ~5 hours a week; helped with homework, tests preparation, and class participation
- Resulted in increased overall grade performance - C student to B student

PROJECTS

WordNet

February 2018

- Implements a WordNet (lexical database for English) in Ruby
- Uses regex to validate file input, then stores and tracks synsets and respective hypernym relationships with a graph

Air List (<https://air-list.herokuapp.com/>)

October 2017 – November 2017

- Web app analyzes Airbnb data from San Francisco to estimate and visualize hosting cost, investment, and popularity
- Created with JavaScript and Node.js for real-time back-end analysis

Freebie Magnet (<http://freebiemag.net/>)

October 2017

- Web app links users together by tracking nearby free events and giveaways, allows organizations to log in and add events
- Created with JavaScript and Firebase for OAuth 2.0 login authentication

Visual Python Simulator

May 2017

- Simulates an explosion from where the user clicks onto a cube of particles with adjustable mass, force, and gravity
- Used VPython (Python with Visual, a 3D graphics module) for particle generation, animations, and calculations

LEADERSHIP EXPERIENCE

Algorithms Club, Treasurer

November 2017 - Present

- Responsible for securing and managing club funding

Potomac Chinese School, Teacher Assistant

September 2014 – June 2016

- Assisted teachers with grading and managing 30 young students
- Helped coordinate community events with 500+ attendees