# **Aaron Opell**

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### Education

University of California, Berkeley

August 2018 - May 2022

**B.A. Computer Science - Sophomore with Senior Standing** 

GPA: 3.55

Relevant Coursework:

Efficient Algorithms and Intractable Problems • Data Structures • Structure and Interpretation of Computer Programs • Machine Structures • Discrete Mathematics and Probability Theory • Principles & Techniques of Data Science • Designing Information Devices and Systems I & II

North Hollywood High School

2014 - 2018

GPA: 4.5

**Highly Gifted Magnet Program** 

## **Work Experience**

**Great Minds Robotics** 

2017 - 2019 Los Angeles, CA

Programming Instructor

• Guided students in learning to write computer programs using languages such as C#, JavaScript, C++, Java, and SQL

- Leveraged knowledge of desktop, web, and database technologies to help students create websites, desktop apps, mobile apps, and games
- · Assisted students by demonstrating best practices for testing, debugging, and verifying program behavior
- · Additionally, taught an Arduino summer program featuring circuit building, C++ programming, and digital logic

## **Projects and Activities**

Schoology Plus Browser Extension

2017 - present

- Created and developed an open source browser extension (using HTML/CSS/JS) which provides new features and enhances existing capabilities of the learning management system Schoology
- Implemented features such as "what-if" grade calculations, a customizable interface editor, theming engine, and improved UX
- Reaches over 15,000 weekly users (and growing!) from over twenty five schools in the Los Angeles Unified School District

#### CyberPatriot Cyber Defense Competition

2014 - 2018

- Secured virtual machines running Windows and Linux desktop and server operating systems by identifying and fixing a variety of security vulnerabilities during a timed competition
- Created and tested scripts (in C#, Batch, and Bash) to automate tedious tasks and assist team members in setting and verifying security
  policies
- Devised strategies with team members to successfully defend our virtual systems from an attacking red team during the national finals competition
- Achievements:
  - Placed 2nd from among over 3000 teams in the national CyberPatriot competition (2018)
  - Placed 1st (2016, 2018) and 2nd (2017) in the California Cyber Innovation Challenge, a state sponsored competition

Fire Alarm Monitor 2016 - 2018

- Recorded fire alarm occurences at North Hollywood High School using a hardware device and catalogued them in a SQL database
- Created a REST API using C# providing real time access to the collected alarm data
- Utilized the API to develop an open source, live-updating website presenting statastics and visualizations displaying the frequency of alarms

#### **Botball Robotics competition**

2016 - 2018

- Proposed, designed (using HTML/CSS/JS), published, and maintained a team website featuring photos, team information, and past achievements
- Programmed autonomous robots in C and C++ to complete various movement tasks in a timed competition

#### Skills

Languages

Proficient: C# • JavaScript • Python • Java • SQL

Working Knowledge: TypeScript • Scheme/Lisp • C • C++ • Bash

Tools

Frameworks: Node.js · ASP.NET

Technologies: HTML • CSS • Git • CI/CD • Unit Testing