# Alan Ma

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## **Technical Skills**

#### **Web Development**

- Designed websites and web applications using HTML, CSS, JavaScript, jQuery, Bootstrap, and AngularJS
- Created a server using Raspbian and Nginx to host websites and allow SSH remote access

#### **Machine Learning**

 Implemented machine learning algorithms in MATLAB, including linear and logistic regression, gradient descent, and neural networks

## **Data Processing**

- Wrote Python scripts to parse and manipulate data to achieve desired results
- Tabulated data in Excel spreadsheets, presenting results in Word/Docs and PowerPoint/Slides

# **Work Experience**

# **Product Development Internship**

at Prolexion (start-up grammar software company)

- Conducted a competitive analysis covering technical functionality and user experience
- Created a web application to input, store, and analyze test cases using HTML, CSS, JavaScript, and jQuery
- Wrote a report summarizing the strengths and weaknesses of competitors, as well as suggestions for our own product

# **Machine Learning Co-op Student**

2016

2016

at The Foundation for Student Science and Technology

- Researched machine learning at a university level
- Worked together with a graduate student from The University of Waterloo
- Wrote a paper titled "Applications of Machine Learning in Education," which has passed through PhD peer review and is awaiting publication in the Journal of Student Science and Technology

#### **Activities and Awards**

- 2017 Google Codejam Qualifier; placed in the top28% worldwide in the open category
- 2017 Placed 1<sup>st</sup> at DECA Regionals; 4<sup>th</sup> at the provincial level; finalist (top 20) at internationals in Anaheim, California
- 2016 SHAD Fellow, Alumni of SHAD 2016 at Memorial University of Newfoundland
- 2016 Achieved a perfect score in Waterloo's JuniorCanadian Computing Competition
- 2015 Top 1% in the Canadian IntermediateMathematics Contest
- 2014 Top 1% in the Pascal mathematics contest
- 2014 Ontario Principals' Council Leadership Award
- 2013 First Place in Professional Engineers of Ontario's annual Mathletics Challenge

## **Extracurricular Activities**

**Executive** of Computer Science Club 2015–Present

 Taught lessons to a club of over 30 members, covering programming and problem solving skills

**VP of Treasury** at Debate Club 2014–Present

- Managed club activities, such as organizing rounds and managing funds exceeding \$1000
- Competed at many debate competitions with teams from across the country
- Taught lessons to over 70 members
- Used spreadsheets to record tournament results

# **VP of Administration** at DECA 2014–Present

- Developed and managed an online student hub website and database
- Managed and tutored members in the Business
   Management and Administration cluster

**Editor-in-Chief** of The Woodstock 2014–Present

- Oversaw the design process of the school newspaper, distributed to over 800 students
- Directed workflow and delegated tasks
- Managed the Facebook page with over 1000 likes