

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 remote access

Operating Systems

- Installed and set up Windows 10, 8.1, and 7 systems
- Installed Linux, Raspbian, and Ubuntu systems
- Partitioned hard drives and reformatted disks
- Troubleshooting application issues

Machine Learning

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

Data Processing

- Parsed and manipulated data in Python to obtain desired outputs given certain inputs.

Microsoft Office

- Familiar with Word, Excel, PowerPoint, and Outlook
- Tabulated data in Excel spreadsheets

Computer Assisted Design

- Used AutoCAD and 3DS Max to model designs
- 3D printed designs with PrintrBot Simple Metal

Experience

Product Development Internship 2016

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

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

Education

High School Student

Current

The Woodlands Secondary School

Honours Award; Current Average: 96%

Activities and Awards

- Top 1% in The University of Waterloo's Pascal mathematics contest (2014) and Canadian Intermediate Mathematics Contest (2015)
- Achieved a perfect score in Waterloo's Junior Canadian Computing Competition (2016)
- Ontario Principals' Council Leadership Award at Edenrose Public School (2011) and Dolphin Senior Public School (2014)
- First Place in Professional Engineers of Ontario's annual Mathletics Challenge (2013)
- SHAD Fellow, Alumni of SHAD 2016 at Memorial University of Newfoundland
- Won 1st place in DECA Regionals, Business Law and Ethics Team Decision Making (2016); took 4th place at the provincial level (2017) and qualifying for internationals in Anaheim, California
- Google Codejam 2017 Qualifier; placed in the top 28% worldwide across all age groups

Extracurricular Activities

Executive of Computer Science Club 2015–Present

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

Treasurer of 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 manage tournament results

Director at DECA 2014–Present

- Managed and tutored members in the Business Management and Administration cluster

Editor-in-Chief of The Woodstock 2014–Present

- Responsible for the design of the school newspaper
- Directed workflow and delegated tasks to reporters
- Managed the Facebook page with over 1000 likes