

Ethan Chan

Contact

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🐙 [Github: ethanchansd](https://github.com/ethanchansd)

🌐 ethanchansd.github.io

Languages

Swift
Objective-C
C/C++/C#
Python
HTML/CSS
JavaScript
PHP

Tools

Xcode
Git / Github
Cocoa Touch
Tesseract
Firebase
SolidWorks
AutoCAD
Siemens NX
NI Multisim

Education

Systems Design Eng. (2021)
Top Decile in Class
Dean's Honours List
GPA: 4.0

Hobbies

Model Aeronautics (R/C)
Avid Golfer
Drone Flyer

Relevant Courses

Digital Systems
Data Structures and Algorithms
Digital Computation
Software Design
Coursera: Machine Learning

Projects

Arab Gleezi

(Swift)

- Developing an iOS keyboard that takes a growing representation of Arabic in English letters into common Arabic letters
- Acquired skills in right to left programming and deep understanding in manipulation of word and sentence structures
- Developing a predictive bar for the keyboard extension that uses machine learning

Object Classifier

(Swift)

- Learned to use vision framework to classify objects captured by the camera

Data Structures Companion

(Swift, Cocoa Pods)

- Developed iOS companion app for the existing introductory Data Structures course used across multiple Waterloo engineering programs
- Created visual aids and explanations for Data structures and Algorithms
- Produced with support of University of Waterloo Professor

NoCaptcha

(Arduino Uno, Arduino C/C++)

- Hardware version of 'are you a robot' implemented into a safe
- Required user to sum a series of numbers to prove liveness
- Constructed low resolution display using led matrix
- Encrypted digital signals from keypad using logic gates and sent to Arduino for decoding through hardware interrupts
- Recreated built in timer functions and handled overflow

Elevator Control | Waterloo Eng. Competition

(UML Diagrams, Pseudocode)

- Architected algorithm to optimize passenger elevator wait times

Experience

Founder, CEO

(May 2018 – Aug. 2018)

Enzer labs, Markham Ontario

- Developed the world first purpose built notetaking application for students
- Utilized native iOS to build a minimum viable product that features handwriting recognition to improve and assist the digital notetaking experience
- Built partnerships with other startups and industry channels to promote brand

Undergraduate Research Assistant

(Jan. 2018 – April 2018)

Prof. Igor Ivkovic, Waterloo, Ontario

- Developed content for educational visualizations
- Increased class performance by targeting common weaknesses in course material

Methods and Manufacturing Change Management Intern

(Sept. – Dec. 2017)

Bombardier Aerospace, Toronto, Ontario

- Developed web database to track milestones in Preflight and Delivery
- Implemented Tesseract OCR on custom program to search archived documents
- Oversaw change harmonization process with department focals to manage implementation process
- Maintained Microsoft Access Databases, developed Excel sheets to visualize data patterns and deployed SAP transactions

Information Systems Analyst and IT Administrator

(January - April 2017)

Perry + Currier Inc. – Intellectual Property Law Firm, Toronto, Ontario

- Programmed, maintained, and advanced the firm's software functionality, performance, and scalability
- Increased efficiency of patent, trademark and copyright procurement processes
- Architected workflows consistent with IP while incorporating rigid eng. practices
- Maintained firm hardware including network infrastructure and security updates
- Supported business continuity planning, IT infrastructure and data confidentiality, security and integrity measures on local and cloud base storage