Jacob Goldfarb

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jacobgoldfarb.github.io

Experience

Software Developer, TD Lab, Kitchener, ON — **Sep 2018 - Dec 2018**

- Developed TD's first ever open-source project, Sketch2App; a framework that allows the user to photograph a hand-drawn wireframe prototype, and then converts it into a functioning iOS app.
- Created a new CoreML machine-learning model using Apple's TuriCreate which was 12x smaller than the previous Keras model, and could therefore be stored on the device, yet maintained the same precision of 85%.
- Collaborated with designers and business analysts utilizing the Google Design Sprint to create POC solutions guided by predefined problem statements.

macOS/iOS Software Engineer, ZurApps Research, Toronto, ON — **Jan 2018 - Apr 2018**

- Ported a mathematical word processor app, called MathPad, originally written in Objective-C to Swift.
- Restructured and reorganized MathPad to improve modularity, clarity, and speed.
- Worked maintaining, fixing, and adding features to RoadTripper, a road trip planning iOS app.

Infantry Sergeant, Israel Defence Forces, Israel — **Dec 2015 - Jun 2017**

- Learned discipline, perseverance, reasoning, and time management during 4 months of basic training (Rifleman 05) and 4 months of advanced training (Rifleman 07) throughout 2016, then served protecting Israel's border.

Projects

Toonies — **Sep 2018 - Present**

- Worked with a designer to create a website to help teach young adults and teenagers the basics of investing.
- Platform features click-through lesson modules and a simulated stock portfolio, hosted by a Firebase backend.

Cortex (UofT Hacks VI Submission) — **January 2019**

- Created an app featuring games aimed at helping restore/enhance cognitive function in disabled individuals.
- The first game was created for autistic children who have difficulty understanding facial expression. The app detects the expression on a person's face (sad, happy, angry, etc.) using an emotion recognition CNN, then quizzes the user as to which expression is being exhibited.

Echolocation Object Detection System — **Jun 2018 - Jul 2018**

- Created a system which can detect the location of any physical object in a 3D, $1m^3$ space.
- Used Arduino Uno as a Micro-controller and 3 echo location sensors. Used Processing 3 to create a GUI to visualize the object's position.

Skills

- **Programming Languages:** Swift, Objective-C, C++, Python, Java, HTML, CSS
- **Technologies:** NumPy, Vue.js, Boostrap 4, Git, Firebase, Dialogueflow, Flask, jQuery
- **Interests:** Chess, Muay Thai, Bouldering, Colourization, Graphic Design, Basketball, Film

School

University of Waterloo, Waterloo, ON, BASc Candidate — **September 2017 - Present**

- Systems Design Engineering student at University of Waterloo, 3.8 GPA
- Relevant Courses: Digital Systems, Data Structures & Algorithms, Entrepreneurial Strategy
- Member of Data Science Club, Muay Thai UWaterloo, Fintech Club, Chess Club