

## Work Experience

### TESLA INC.

**SENIOR SOFTWARE ENGINEER (11/19 - PRESENT)**

**SOFTWARE ENGINEER (9/18 – 11/19)**

**SOFTWARE ENGINEER INTERN (1/18 – 8/18)**

Drastically improved factory efficiency by automating factory processes and simplifying production lines. This consisted of designing an on-board system that can automatically detect, test and configure car components as the car is being assembled. This software was originally designed for the Model 3, but has been ported to Model S and Model X because of its success in reducing factory costs.

Improved service efficiency by building a diagnostics tool that allows thorough and fast diagnostics. The tool provides an interface on the Model 3's in-car display which allows users to quickly scan the vehicle for issues. It also allows technicians to perform common procedures, such as calibrations.

These systems span technologies such as Python, CAN, UDS, React, go, Bash, C++, JavaScript, and Kubernetes.

### DATTO INC.

**SOFTWARE ENGINEER INTERN (8/17 – 12/17)**

Built an API that managed a large part of Datto's cloud. The API provided the functionality needed for customers to restore their data and machines. Consisted of launching VMs, attaching users' data to it via NFS, and destroying the VM.

Main technologies were PHP, ZFS file system, and SQL.

### INTUIT INC.

**SOFTWARE ENGINEER INTERN (1/17 – 7/17)**

Maintained and improved nearly all aspects of the TurboTax iOS application. This included implementing new features and fixing bugs. One of my main contributions was implementing the "hamburger" menu, which is a critical part of the application that allows users to navigate to different sections within the app.

Main technologies were Swift, Objective-C, and Xcode.

## Skills & Abilities

### LANGUAGES

Python, go, JavaScript, Swift, Objective-C, PHP, C++, C#, Java

### TECHNOLOGIES

Front end web – React, Redux, HTML/CSS

Backend web – go, Django, NodeJS, AWS, SQL

Deep learning – Keras, TensorFlow, Pandas, Numpy

## Products

**SLICES** (OPEN SOURCE)

iOS tweak which allows users to create multiple profiles for their applications. Successfully sold on Cydia marketplace with over 20,000 sales.

**TIMEPASSCODE PRO** (PARTIALLY OPEN SOURCE)

iOS tweak which makes the device's passcode the current time. Successfully sold on Cydia marketplace with over 2,000 sales.

**COLORIZE**

iOS tweak that adapts the native Music app's color to the current song's album art. Successfully sold with over 2,000 sales.

**VINE DOWNLOADER**

iOS tweak which allows users to save videos from the Vine app into their camera roll. Successfully sold on Cydia marketplace with over 3,000 sales.

**INSTACHOOSER**

iOS tweak which allows Instagram users to upload photos from their camera roll (before it was natively supported). Successfully sold on Cydia marketplace with over 1,000 sales.

## Projects

**VELOCITY**

Cross-platform application which supports viewing and modifying nearly every Xbox 360 file format.

**NEURAL NETWORK PLAYGROUND** (OPEN SOURCE)

Built a neural network from scratch in Swift. Trained on MNIST dataset and achieved 91% accuracy.

**GUESS MY DRAWING** (OPEN SOURCE)

Custom built CNN model which classifies user drawings into 1 of 345 categories. CNN runs natively on iOS devices, and works consistently well.

**IOS VISION APP** (OPEN SOURCE)

iPhone application which uses Resnet-50 and Inceptionv3 networks to classify images in real-time from a device's camera.

**CIFAR CUSTOM CNN** (OPEN SOURCE)

Custom built CNN model which classifies images from the CIFAR-10 dataset.

**MINER**

Bitcoin miner which runs on the iPhone.

**NOLIMIT**

Website which allows for unlimited time while viewing Snapchat pictures.

More available at <https://github.com/hetelek/>.