Michael Socha

3B Software Engineering, University of Waterloo

msocha@edu.uwaterloo.ca
github.com/m-socha
m-socha.github.io

Technical Skills

- Mobile, backend, and full-stack web development experience with the following technologies:

Languages: C/C++, Java, Python, SQL, JavaScript, Swift, Objective-C, Scala, PHP, GLSL, MATLAB
Platforms & Tools: Android, iOS, MySQL, MongoDB, Hadoop, Hive, Linux, Arduino, JSP, Git
Libraries: PyMongo, jQuery, Backbone.js, RequireJS, OpenGL ES, Retrofit, RenderScript, Swing

Work Terms

Mobile Engineer - iOS, Wish Inc. San Francisco, CA, *Apr – Aug 2017*

- Participated in a complete rewrite of Wish's iOS e-commerce app from Objective-C to Swift
- Implemented app's networking layer, including API services, login, and session management
- Transitioned UI from static frame-based approach to Auto Layout, and built core reusable views such as rating scales and loading pages
- Built several user-facing features of the app, including the main product details page, user and merchant profile pages, and login screens

Mobile Engineer, Wish Inc. San Francisco, CA, *Aug – Dec 2016*

- As a developer for a large-scale mobile-centric e-commerce platform, contributed to Wish's mobile clients (Android, iOS), web (Backbone.js, jQuery), and backend (Python with MongoDB)
- Implemented experimental features across Wish's mobile and web clients, with results including an increase of over 4% in annual order volume and a doubling of product shares to social media
- Analyzed performance of experimental features using Hive (Hadoop data warehouse) to make recommendations concerning their rollout and segmentation
- Revamped fraud detection algorithms to analyze different criteria for high-value users, preventing thousands of false positive detections per month

Software Developer - Android, WeMesh Inc. Waterloo, ON, *Jan – Apr 2016*

- Expanded WeMesh's distributed video synchronization client on Android to support video streaming from three additional content sources (Dropbox, Google Drive, Google Photos)
- Applied OpenGL ES to implement video filters, including blurring and letterbox cropping
- Overhauled the UI of several key screens, including the app's lobby and video feed
- Used performance profiling tools to improve the Android app's stability and efficiency

Application Developer, Kenna Inc. Mississauga, ON, *May – Aug 2015*

- As a full stack web developer, applied JavaScript with jQuery, HTML, CSS, and MS SQL to implement new features, performance improvements, and bug fixes on enterprise websites
- Implemented ad hoc data queries for custom data extraction and analysis using MS SQL

Extracurricular Experience

KIREA Admin Portal, *Aug 2014 – Feb 2017*

- Designed, implemented and maintained a web portal for administrators of a charity to manage donors, automatically generate and email receipts, and analyze donation trends

U. Waterloo Aquaponics Team Sensor System, *Sep 2014 – Feb 2015*

- Built MySQL and PHP backend to organize and run analytics on aquaponics system sensor data
- Implemented a web UI in JavaScript, HTML and CSS to present sensor measurements

Technical Projects

Image Filters - Published Android app for image editing with RenderScript-based kernels
Parsing Tools - Java library of tokenization and parsing tools (max munch scanner, CYK parser, etc.)
Carcassonne Clock - Single-page JS web app that serves as a timer for the board game Carcassonne