Sarah Klein

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https://github.com/ssk13

University of Florida
B.S. Digital Arts and Sciences Engineering, 2017 *College of Engineering*
B.A. Music Theory, 2017 *College of the Arts*

Past and Present Employment

(Microsoft) Software Developer Engineer *July 2018 - Present*
ReactJS, React Native, C#, C, Objective-C, Java, python, Jest

- Collaborated on React Native mobile app, built for iOS and Android, for provisioning IoT devices over BLE, including ownership of unit testing (Jest) and telemetry (App Center)
- Developed firmware for provisioning IoT devices running IoT Core (C#) and Mongoose
- Used OpenCV and python to analyze human activity in physical spaces based on real-time video
- Collaborated with external partners to integrate 3rd-party ML into 1st-party data pipeline

(Microsoft) Data & Intelligence Engineer *September 2017 – July 2018*
C#, XAML, JavaScript, Cosmos, SQL, python, Java, Objective-C, ML Studio

- Developed and validated UWP applications for Windows IoT Core, contributing primarily to IoT Core default app, *Smart Display*
- Debugged IoT Core on various devices (RPi, Dragonboard, MinnowBoard, Up2) and sensors
- Developed and validated web, iOS, and Android applications for internal selfhosting of IoT Core
- Used data analytics and machine learning techniques to gain insight on IoT Core stability and usage

(Microsoft) Developer Intern, PowerPoint *May 2016- August 2016*
Java, C#, XAML, SQL

- Implemented a feature for UWP and Android platforms that renders a laser pointer onto a PowerPoint presentation, the position of which is manipulated using the phone's gyroscope,
- Implemented unit tests and telemetry for new feature

(Microsoft) Developer Intern, Sway *May 2015-August 2015*
TypeScript, XAML

- Designed, implemented, and tested native audio support for Microsoft Sway, allowing users to incorporate audio files in their Sways

(Grooveshark) QA Developmer Intern *January 2015-April 2015*
JavaScript, EJS, LESS

- Performed bug fixes and implemented features for both user-facing web site and internal flighting
- Worked closely with designers for pixel-perfect UI across all supported platforms

Projects/Publications

PseudoComposer (https://github.com/ssk13/SeniorProject)

- A multi-year study in algorithmic composition, beginning with a Java program that composes 4-part chorales in the style of J.S. Bach, and culminating in a university funded research project
- Worked closely with music theory faculty to design and develop an angular web application that verifies user-provided species counterpoint according to 16th century standards
- Research paper selected for publication in the Summer, 2018 edition of the *Journal of Undergraduate Research*