

David Kooistra

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EDUCATION

University of Michigan
B.S.E. in Computer Science
Minor in Business

Overall GPA: 3.76
Apr. 2019

JOB EXPERIENCE

Autodesk – Digital Manufacturing Group

Software Engineer Intern

Salt Lake City, UT

(June – Aug. 2017)

- Contributed to the development of production-quality manufacturing software and worked in an *Agile* environment to create optimal solutions for complex engineering problems.
- Built a Windows MFC wizard using C++ which will be used on the main page of the 2018 production software.
- Collaborated with managers and developers to fix bugs and integrate new functionality into the existing code base.

Michigan Research Performance Laboratory

Data Analyst Assistant

Ann Arbor, MI

(May – Aug. 2016)

- Processed data from IMU's and a Myopressure Treadmill using MATLAB software for a study including 32 participants.
- Edited and assisted in the organization of a final manuscript for the *Journal of Sports Sciences*.

SOFTWARE ENGINEERING

Languages

- **Proficient** - C/C++, Python, Swift, HTML, and CSS
- **Experienced** – JavaScript, Objective-C, C#, R and MATLAB

General

- Data Structures and Algorithms, Object Oriented Design, Computer Organization and Architecture, Computational Theory, Discrete Mathematics, Calculus (I, II, IV)

iOS Specific

- Interface Builder, Auto Layout, TableViews, CoreData, Threading and Concurrency, MapKit, WatchKit, ARKit, Localization, shipping to App Store, Segues, Parsing JSON

Tools

- General - Github, Sketch, Slack, Jira, Jupyter Notebooks, Arduino, Tortoise SVN

PROJECTS

Client Note Keeper – iOS App (Available on the App Store)

(June 2017)

- Created an app for my Dad to organize his client notes for his psychology business. Now the app is available on the App Store for iPhone and iPad, and has over 300 downloads across 5 different countries.
- Implemented email export for sharing notes as well as custom password protection to keep notes secure.
- Used *Sketch* for designing the UI and creating promotional screenshots to market the app in the App Store.

Augmented Reality Whale – iOS App with Unity3D

(July 2017)

- Created an app utilizing Apple's beta ARKit in which the user can control a virtual whale swimming in their physical space.
- Developed C# scripts in Unity 3D to allow user control over the whale's size and movements with on-screen buttons.
- Scheduled plans to launch the app to the App Store along with Apple's release of iOS 11 in the Fall.

Twitter Predictor – Tensor Flow Machine Learning

(May 2017)

- Incorporated Tensor Flow with the Twitter API to train a neural net model to predict the author of a tweet.
- Utilized Python and TextBlob to form tensors from tweets based on sentiment analysis and phrase frequencies.
- Established future plans to make the model more accurate and publicly available for users to create custom models.

LEADERSHIP EXPERIENCE

MHEAL – Team PeriOperative

(Jan. 2015 – Jan. 2017)

Technical Lead

- Implemented an embedded controls system for a surgical patient-warning device using off-the-shelf hardware components.
- Led weekly meetings with the team and a Director of Product Development from *Stryker Corporation*.
- Collected user feedback on a “low-resource” prototype from surgeons of four hospitals in the Dominican Republic.
- Presented to over 100 students and advisors at the University of Michigan Engineering Design Review.