Richard Sicoli

https://richardsicoli.github.io

Email : richs2@me.com
Mobile : +1-631-629-9945

Education

- **Stony Brook University** — Stony Brook, New York
  Master of Science (M.S.), Computer Science (GPA: 3.750) — *Aug. 2017 – Dec. 2018 (In Progress)*
- **Stony Brook University** — Stony Brook, New York
  Bachelor of Science (B.S.), Computer Science (GPA: 3.570) — *Aug. 2013 – May 2017*

Experience

- **Stony Brook University**
  Research Assistant — *Jun. 2017 – Present*
  Currently working as a research assistant with Prof. Niranjan Balasubramanian on a privacy system. The system uses machine learning for entity-level sentiment analysis to find a user's view towards the people or places they read about online.
- **Applied Application Technologies, LLC**
  Co-Founder & Software Engineer — *Jul. 2015 – Aug. 2016*
  Developed the app, ClothesOn, which received funding through the Stony Brook entrepreneurs challenge. ClothesOn allows a user to manage their wardrobe and get recommendations on what to wear. I developed the entire iOS application from the interface and backend to the recommendation system.
- **Charmtech Labs, LLC**
  Software Engineer — *Sept. 2013 – Feb. 2015*
  Hired during my first semester at college as a software engineer for a startup at the Center of Excellence in Wireless & Information Technology (CEWIT). I worked with a team of researchers and engineers on the iOS app, Capti. Capti allows people to listen to content on the web. The app features a heavy focus on accessibility for people with vision impairments. I worked on the interfaces, Core Data, landscape and iPad support, text to speech system, and built the custom browser.
- **GameFuse, LLC**
  Founder & Software Engineer — *Apr. 2011 – May 2014*
  In high school, I developed 3 iOS games through my indie game development company, GameFuse, LLC. These apps were Star Runner, Amazing Paddle, and 6 Colors. I also developed a custom physics engine in Objective-C for these games, Frost2D. This experience allowed me to develop skills in algorithms, physics, networking (IP/TCP/UDP), code optimization, memory management and more. See my website at top of page for more details.

Projects

- **Human Activity Recognition System:** Uses convolutional neural networks on time series from mobile device sensors. Model built and trained in Python/Tensorflow and runs on iOS devices using Core ML.
- **DeepBoard:** A smart touch keyboard with offline prediction of user photos using convolutional neural networks and natural language processing techniques.
- **Linux Kernel Development:** Implemented new system calls (encryption and deduplication), ioctl commands, modified kernel source code, and built a stackable filesystem with encryption and compression capabilities.
- **Sicoli Home:** Home automation system. Uses a central TCP server for backend processing with a frontend iOS app. Controls IP devices such as cameras and lights from a variety of manufacturers. Also supports Apple HomeKit.

Additional Projects: Java Web App using JSP/Servlets/SQL, MIPS Disassembler, Basic Shell in C/MIPS, Image Classifier in Tensorflow, Motion Tracking in MATLAB, Decision Tree implementation in Python, Context-Free Grammar Parser, IP Packet Sniffer.

Accomplishments

- 2014 FCC Chairman's Award for Advancing Accessibility in the category of Mobile Web Browsers
- Apple WWDC Scholarship Winner 2014, 2015 and 2016
- Stony Brook Entrepreneurs Challenge Funding 2015
- Stony Brook Game Programming Competition Finalist 2014

Skills

Swift, Objective-C, C, Java, C++, Python, SQL, JS/HTML/CSS, Git, iOS/macOS, Android, Machine Learning