

I am an energetic iOS and machine learning enthusiast with a background in software engineering. My goal is to leave the world a better place every day by crafting impactful software for ethical companies.

Experience

SOFTWARE DEVELOPER INTERN, WELLS FARGO – JUN 2019 - AUG 2019

Implemented an internal web app to manage investment banking research using Java EE, Spring Boot, Maven, and SQL server EE. This app allows internal users to flag MIFID attestation updates, for users and companies, within our internal database. This application performs validation, authentication, and large batch CRUD operations to eliminate human error, thus saving over 400+ man-hours annually.

TEACHING ASSISTANT: IOS , VIRGINIA TECH; BLACKSBURG, VA – AUG 2018 - PRESENT

Taught the VT iOS class which focuses on SwiftUI concepts such as MVVM, Core Data, URL requests, Image caching, View Navigation, Cocoa Pods, User auth with firebase, and UI design. I also taught multithreading, closures, and other swift fundamentals.

CAPTURE THE SATELLITE INTERN, NASA IV&V; FAIRMONT, WV – MAY - AUG 2018

Performed penetration testing to determine weaknesses in the current NASA satellite security system. After the most pertinent weaknesses were defined, we decided to build a proxy to filter packets. I created the backend to the CCSDS packet validator (Java) to validate incoming TCP/IP from the science operations center. This MOM validator takes control of the greatest weaknesses by establishing redundant packet validation.

Personal Projects | (Github: Bradysm)

SHAUX : IOS – MAR 2020 - MAY 2020 | REPO: PRIVATE

Shaux was created to solve the problem of community playlists at parties and events. With Shaux, attendees can add music to the hosts queue and vote on songs to have them played in the order that they want. Users of the application can like songs that they queue often and search through event histories and add their favorite songs to their Spotify. I built the iOS application using SwiftUI, firebase, and a pub/sub architecture.

REALU: IOS – DEC 2019 - JAN 2020 | REPO: [REALU](#)

RealU is an iOS app allowing users to gain a greater emotional intelligence of patrons by utilizing their social media presence to create a personalized profile of the patron detailing their personality, habits, and their consumer trends. These insights are curated by utilizing the twitter API and the IBM Watson SDK. The application is created using SwiftUI.

PYSPY : PYTHON – JUN 2019 | REPO: [PYSPY](#)

PySpy is a one of a kind python recon tool that logs keystrokes and visual information from the computer it is run on. PySpy utilizes yagmail, to send an email to the deployer every defined interval which contains logged keystrokes and visual screenshots from the computer. Gaining information is easier than ever with the shell script that installs dependencies and initializes the email connection so you can focus on the task at hand.

CS 188 (CAL BERKLEY INTRO TO AI) PACEMAN PROJECTS – JAN 2019 - MAY 2019

Completed paceman projects on informed search, adversarial search, Markov Decision Processes, probabilistic inference (particle filtering and HMM's) and reinforcement learning (python). Useful AI and ML algorithms, such as A*, Q-learning and particle filtering, were implemented for the pac-man agents.

MIXED MACHINE: JAVA – JUN 2018 - SEP 2018 | REPO: [MIXED](#)

Constructed a robotic bartender to solve the inability to make mixed drinks efficiently at tailgates and get-togethers. *Mixed* is crafted using Android and Arduino components (XML, Java, C++) which allows the user to communicate with the bartender, using Bluetooth UART, by ordering drinks via the Android application.

Education

VIRGINIA TECH (2017- 2020) – B.S. COMPUTER SCIENCE | 3.96 GPA (SUMA CUM LAUDE)

- Tau Sigma honors society, Deans list, CS mentors club, SigEp charter brother
- Recipient of the James E. Vrendenburgh, Jr. Leadership Award
- Virginia Tech Computer Science Junior scholar award (highest GPA in class)