Sean Chapman

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EDUCATION

University of Maryland, College Park | *College Park, MD* *August 2017 - May 2021*
B.S. Computer Science
Minor: Astronomy

Relevant Coursework
Computer Systems / Algorithms / Advanced Data Structures / Data Science / Full-Stack Web Development / Computer Networks + Security / Machine Learning / iOS Development / Concurrent and Distributed Computing

SKILLS

Proficient in Java, Python, C, Git, UNIX, HTML, CSS, Javascript
Familiar with Node.js, MongoDB, SQL, C#, Swift, Hadoop, MapReduce

EXPERIENCE

Software Research Intern (VR) | *NTU IoX Center (Taipei, TW)* *July 2019 - August 2019*
- Developed VR demos in Unity and C# to analyze novel VR haptics systems.
- Wired and programmed arduinos for a prototype VR haptic system called the GuideBand.
- Co-authored a paper on providing multi-level non-uniform feedback on the feet in VR (FrictShoes)

Software Engineer Intern | *Wonplanet.com (Palo Alto, CA)* *June 2018 - August 2018*
- Worked on implementation of premium subscription functionality.
- Updated SQL schemas to account for varying payment options.
- Implemented payment integration with HTML/CSS/Scala/Braintree.

PROJECTS

Akka Resource Manager *April 2021*
- Wrote a Java program that utilizes the Akka Framework to create a distributed resource management system.
- Allows users to access and modify files across a distributed network of computers.

Multi-threaded Maze Solver *March 2021*
- Utilized Java thread-pools and task schedulers to efficiently calculate solutions to extremely large mazes.
- Achieved solution speed in top 15% of class.

SDSS Classification *June 2020*
- Performed an exploratory analysis of data from NASA's Sloan Digital Sky Survey.
- Utilized Python's data science stack to generate interesting visualizations.
- Wrote classifiers to determine whether an object is a star, galaxy, or quasar with up to 98% accuracy.

Terp Food Reviewer *May 2019*
- Developed a live-updating hub of local restaurant reviews for students at the University of Maryland.
- Utilized Node.js, MongoDB for the back-end. Express, Handlebars, and Javascript for the front-end.

PUBLICATIONS

FrictShoes: Providing Multilevel Nonuniform Friction Feedback on Shoes in VR (TAICHI 2021) *July 2021*
- A paper I co-authored while working as a research intern at the NTU IoX Center in the summer of 2019.
- Proposes a wearable device, FrictShoes, to provide multilevel nonuniform friction feedback on feet.

EXTRACURRICULARS

Hackital 2018 *December 2018*
- One of three finalists at a cryptocurrency-themed hackathon hosted by students at George Washington University. Developed a trivia game that runs on the Ethereum blockchain platform.

PALY Robotics Team *October 2015 - June 2016*
- Updated information and UI features for the team's website with HTML/CSS/Javascript.