

Junwon Shin

25464 Birchwoods Dr, Novi, MI 48374 | 248-884-3887 | jwshin@umich.edu

Education

University of Michigan - College of Engineering

Sep. 2018 – Dec. 2020 (Expected)

- Bachelor of Science Engineering, Computer Science
- GPA: 3.86/4.00
- *Relevant coursework:* Operating Systems, Computer Networks, Computer Vision, Machine Learning, Web Systems, Data Structures and Algorithms, Computer Organization, Foundations of Computer Science

Experiences

ServiceNow, Software Engineer Intern

May 2020 – Aug. 2020

- Created a full stack information page that dynamically displays users' product performance data and a breakdown of contributing factors to it using AngularJS, REST architecture, and server-side programming
- Implemented an algorithm to decide when custom scripts should be run using a JavaScript parser, improving usability for developers and clients, increasing overall runtime efficiency by nearly 15%
- Enhanced plugin and package relationship dashboard by synthesizing database queries to establish two new metrics, leading to greater quality assurance and issue identification within niche product auditing

Michigan MedLaunch, Project Manager, Software Team Leader

Sep. 2019 – Present

- Leading a team of students to make a program that analyzes EMG data collected from a wearable EMG armband using machine learning to identify muscle weakness in patients undergoing stroke rehabilitation
- Designing an interactive smartphone companion app that will track the recovery process, display physical exercises and remind patients to do them, and allow doctors to monitor their patients and their progress

Free Speech Technology Research Team, Software Team Member

Dec. 2019 – Present

- Creating a secure, decentralized communication smartphone app that can be used in environments or events where cellular/Wi-Fi service is unavailable while also preventing blocking, censorship, and surveillance
- Designed an efficient algorithm using Merkle trees to allow users to send and display messages that are of virtually any size, surpassing previously established rudimentary BLE data transmission limit of 24 bytes

University of Michigan - Department of Dermatology, Research Assistant

Oct. 2018 – Apr. 2019

- Combined and reconciled data sets containing over 500K sets of patient information using MySQL scripts to create coherent database, allowing for faster and easier data searching and comprehension by doctors
- Consulted various online resources such as W3Schools and Stack Overflow to derive creative and efficient solutions for patient data and psoriasis impact analysis, cutting operating time by over half

Technical Projects

Skills: C/C++, Python, Java, JavaScript, C#, Node.js, ReactJS, AngularJS, MySQL, Git

Wikipedia Search Engine

- Built an end-to-end search engine that implements MapReduce for scalability and information retrieval based on tf-idf and PageRank scores for accurately ranked results, using ReactJS to construct the interface

Soccer Web Scraper and Website

- Created a web scraper using JavaScript to acquire statistics for a given season and bio profiles for players in dozens of soccer teams and designed a dynamic, interactive website to display real-time data

Client-Side Dynamic Instagram Clone

- Developed an event-driven dynamic site that mimics the functionality of Instagram using the React framework and asynchronous JavaScript programming alongside Python and the Flask framework

Professor Reviews Classifier

- Applied multiclass SVM on RateMyProfessor reviews to train a classifier based on content, using feature engineering and hyperparameter selection to predict new post classifications with 83% accuracy

Additional

- Starting midfielder for U of M's Korean travel soccer team that competes in college tournaments
- Part of a K-Pop/hip-hop fusion dance group that performs on campus throughout the year
- Aspiring amateur game developer