Haozhe Zhang

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EDUCATION

University of Florida, Hough Graduate School of Business **January 2021 – June 2021**
Master of Science in Management, *Combined Degree* Gainesville, FL
National Universities Ranking: 30 (US News 2020)

University of Florida, Herbert Wertheim College of Engineering **August 2016 – December 2020**
Bachelor of Science in Computer Science, *Computer & Information Science & Engineering* Gainesville, FL
Honors: cum laude, GPA 3.61/4.0

TECHNICAL SKILLS

Programming Languages and Game Engine: JavaScript, Python, C++, JAVA, MATLAB, Unity **OS:** Linux
Web and Mobile Development: HTML, CSS, React, Express, Node, React Native, Kivy **Databases:** SQL, Mongo, Firebase

CONSULTING ENGAGEMENT EXPERIENCE

Waste VR **August 2019 – May 2020**
Scrum Master Gainesville, Florida
Managed day-to-day developmental progress and a team of 5 engineers on a Virtual Reality project sponsored by the company PTP Strategy via the UF Integrated Product and Process Design (IPPD) program.

- Oversaw and ensured consistent and accurate output of the sponsor's desired program under the Agile development pattern by collaborating with the programming team members, faculty coach, and liaison engineer.
- Developed a Virtual Reality application and a series of learning modules with Unity, targeted to the general public for education on recycling methods.
- Designed the Assessment/Quiz Scene of the program individually, involving scene construction and devising algorithms to complete quizzes, resulting in real-time feedback for users.

PROJECTS

Humming **April 2020 – September 2020**
Designed and developed an Android application that provides users instant delivery services via drones and robots within San Fransisco (simulation) in Agile development pattern.

- Engineered all 7 screens, which provide functionalities of user authentication, solution planning, order creation, status tracking, profile information modification, etc., with React Native and Firebase.
- Enhanced the user experience by implementing several React Native, Expo, and Google APIs such as polyline drawing, route computation, coordinate-address translation, and payment integration.
- Devised RESTful APIs to facilitate data exchange for order creation and management, payment information generation and validation, and address management via Firestore.

InMotion **November 2019 – September 2020**
Designed and developed a real-time web application that analyzes human facial expressions from webcam and video, sorts the emotion data into 7 categories, and displays the data with a visual diagram.

- Constructed the user authentication module with NodeJS, ExpressJS, Mongoose, and JWT, which stores and accesses the authentication token in cookies.
- Applied Firestore to store facial expression data collected from webcam and video uploaded every 100 frames, query, and retrieve the data for further facial expression analyses.

Poppy **May 2020 – August 2020**
Developed an Android application that reads medicine instructions and reminds users to take medicines.

- Created a task manager with Kivy and a SQL-stored reminder system by utilizing captured images of prescription instructions on bottles.
- Integrated the OCR (Optical Character Recognition) module on a Flask server hosted on Heroku to process pictures containing the medication instructions and program tasks in accordance with the information.

Devconnector **December 2019 – January 2020**
Developed and deployed a MERN stack social network media application that includes user authentication, profiles and forum posts.

- Built an extensive backend API with Node.js & Express with routes protected by JWT and tested with Postman.
- Integrated React with the backend and managed the application states with Redux, resulting in a fast and clean workflow.

RESEARCH

Minetest **September 2020 – December 2020**
Helped investigate how to speed up the build process and generate correct WASM file outputs for a Minecraft game engine.

Human-Robot Interaction Research Lab **January 2020 – May 2020**
Participated in a project exploring the lower body, post-op rehabilitation through VR capabilities, and explored mobile applications as base platforms with ease of access.

- Investigated the use of smartphone IMU sensors to collect user motion data, involving data extraction and visualization.
- Connected the Xsens model with Unity and developed a VR warehouse environment in order to construct a virtual experiment environment that manages different human-robotic interaction tasks, without the pilot being exposed to potential hazards.