School Address:

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James Xu

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Objective: I am a computer science major interested in mobile and web development. I am most comfortable coding in C++, but I know various other languages and can easily learn new ones. I am actively seeking an internship for the summer of 2019.

Education:

University of Michigan • Ann Arbor, MI • B.S.E Computer Science

Class of 2021

GPA: 3.806, University Honors, Dean's List

Relevant Coursework: EECS 370: Introduction to Computer Organization, EECS 281: Data Structures and Algorithms, EECS 203:

Discrete Mathematics, Math 214: Applied Linear Algebra

Harvard-Westlake High School • Studio City, CA

Class of 2017

GPA: 4.406W, 3.816UW, Cum Laude

Work Experience:

NBC Universal • Mobile Developer Intern • Seattle, WA

Jun 2018 – Aug 2018

- Implemented and engineered major features for the Android and iOS versions of the NBC News app
- Learned the fundamentals of both mobile platforms using the languages Kotlin and Swift
- Created pull requests and engaged in code reviews with senior engineers to discuss potential improvements
- Worked with user interface designers to ensure the usability and accessibility of features
- Actively contributed to Agile Software Development workflow by accepting and completing tickets using JIRA

Kumon • Teaching and Grading Assistant • Studio City, CA

Aug 2016 – Aug 2017

- Responsible for teaching about 40 students math and reading based on Kumon's curriculum
- Graded hundreds of students' homework and tests for correctness

Projects:

Face Recognition (React.js, Node.js, PostgreSQL)

Aug 2018

- Designed a React application that uses the Clarifai API to detect the gender, age, and demographic of a face
- Created a back end server with Express.js that allows users to create and sign into their accounts
- Managed a PostgreSQL database to collect and store information about the activity of users

Linear Gradient Generator (HTML, CSS, JavaScript)

Aug 2018

- Build a website that allows users to visually create linear gradients by selecting two colors and degree of rotation
- Implemented a feature that generates random linear gradients and keeps track of their history

Engineering 100: Autonomous Vehicles (C++)

Jan 2018 – Apr 2018

- Lead a team of four to develop a quadcopter that can autonomously traverse an obstacle course
- Soldered on proximity sensors and researched optimal parameters for the PID controller
- Developed an algorithm to produce precise movements for the quadcopter

Book Writer (Java)

Feb 2016

- Created a program that receives input text and outputs text with a similar writing style
- Used a simple Markov chain that selects words based on their probability inside a hashtable

Organizations:

Michigan Autonomous Air Vehicles • Ann Arbor, MI

Sept 2017 - Present

- Designed C++ code for strategy team to control drone to guide Roombas towards goal line
- Developed actions such as landing and tracking for autonomous path planning
- Used OpenGL to create a simple representation of the quadcopter's current path

ArborHacks • Ann Arbor, MI

Sept 2017 - Present

- Assisted in the redesign of the ArborHacks website
- Created challenging coding questions for high school students attending our hackathon
- Guided students during hackathon and gave support when necessary

WolverineSoft • Ann Arbor, MI

Sept 2017 - Present

- Created a simple 3D game in Unity that allows players to maneuver different obstacles and fire projectiles
- Attended weekly meetings and discussions about game design fundamentals

Technical Skills:

Programming Languages: C++, JavaScript, Swift, Kotlin, Java, MATLAB

Technologies: React.js, Node.js, Express.js, PostgreSQL, Xcode, Android Studio, Git, Sourcetree