**Kaiyuan Zhao**

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**EDUCATION\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Northeastern University,** Boston, MA Dec 2019

Master Of Science In Information Systems

Courses: Web Engineering and Development, Application Engineering and Development, Smartphones-Based Web Development, Program Structure And Algorithms, Software Quality Control And Management

**University of Nebraska Lincoln,** Lincoln, NE May 2017

Bachelor Of Science in Mathematics (Minor in Computer Science)

Courses: Probability, Distribution Theory, Internet System and Programming, Computer Organization

**TECHNICAL SKILL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Programming languages: Java, C++, C, Swift, Objective-C, Python

Web Development skills: HTML/CSS, AngularJS, JavaScript, jQuery, JSP

Database: MySQL, NoSQL, MongoDB, Firebase

QA Testing skills: Micro Focus UFT, Selenium

**WORK EXPERIENCE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Mobile Application Developer(iOS), Uberjets LLC,** Norwell MA Jan 2020 – Present

Responsible for iOS App design and development, working with back-end integration and API development team.

* Designed the application workflow for both member and non-member customers.
* Worked with API Development team and used REST API basic authentication for customer login and logout.
* Used REST API to handle each customers’ booking processes such as request flight and edit catering.
* Implemented customer pick up and drop off map feature and post data to the server for passenger pickup.

**Mobile Application Developer (iOS), EYEnexo LLC,** Boston MA Jan 2019 – Aug 2019

Responsible for design and develop iOS Apps for doing accurate eye examinations without any phone attachments. All products include UI design, algorithms and databases, it is being widely used in Massachusetts’s hospitals.

* Act as technical lead on projects, assist in analysis, design, develop and perform beta test with other team members, communicate closely with product manager and QA team to continuously improve apps.
* Used multiple developing tools like XCode, Swift, Objective C, Interface Builder, Instruments, Cocoa Touch.
* Cropped the face image from the patient and passed to the library, used OpenCV and algorithms to process the image such as calculating interpupillary distance, pupillary diameter and reflection position for each eye.
* Designed and developed prescription power test by using Google Mobile Vision to ensure the patient is at correct distance with correct eye opened.
* Used Core data and Firebase to store user’s information and test result online and in the device, users can share their reports to doctor via encrypted document for privacy purpose.

**PERSIONAL PROJECT\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Genetic Algorithm (Java)** Oct 2018 – Dec 2018

The algorithm is to evolve random black pixels on a white background, use them as parents to produce the children for next generation, eliminate unsuccessful generations, evolve toward the solution image.

* Initialize the first generation with 1000 random pixels and calculate distance between them and target pixels.
* Designed the function of mutation, crossover, evolution, children will survive 50% for next generation.
* Used multi-thread in the crossover process, evolved into the final with 94.91% fitness after 5000 generations.

**Online Shopping System (Angular, Web API, JavaScript, HTML/CSS).**  Oct 2017 – Dec 2017

* Design the UI by bootstrap CSS library and search algorithms which can search products in each category.
* Set up 5 main different roles in the system and establish the account information connection to the back end.
* Developed the MongoDB database which connects the backend and keeps all users’ information and data.