Berry Xia

Seattle, WA | 857-350-5933 | xia.ziw@northeastern.edu | https://github.com/belicephia

EDUCATION

Northeastern University, Seattle, WA — *M.S., Computer Science (GPA: 3.5)*   *Jan. 2021 - Present*

California Polytechnic State University, San Luis Obispo, CA — *B.S., Mechanical Engineer*   *Sept. 2014 - June 2019*

Relevant Coursework: Algorithms, Data Structure, OOD, Developing Apps for iOS, Web Development, Intro to AI

SKILLS

Software Languages: Python, Java, C, MATLAB, JavaScript, HTML, SQL, Swift, Kotlin

Framework/Tools: CSS, Gradle, NodeJS, GitHub, Shell, SwiftUI, XML, Bootstrap

Database/Cloud: MongoDB, NoSQL, Firebase

Hardware: SolidWorks, System Design, Mechatronics control, FEA

WORK EXPERIENCE

Amazon (NDA), Seattle, WA — *Hardware Development Engineer*   *Aug. 2019 - Dec. 2020*

- Co- inventor of a breakthrough design (**Patent** by Amazon). Worked with computer scientists on identifying the **image processing** requirements. Designed and performed test plans that target both software and hardware.
- Led and design a heavily used protocol that incorporate the needs of software, hardware, business and QA stakeholders. Automatic the process by generated a special calculator using **Python**.
- Developed **Python** test scripts that use ANOVAs data analysis. Performed automatic and manual **mechanical** and **software tests** to find hardware and software limitations and area to improve with tests such as**: pick and place, wear, shock, vibration.** Utilized the test result to improve the design efficiency for **25%** and reduce the cost for manufacturing for **15%**.
- Performed various **CAD** designs for generations of EV, DV devices.

FUJIFILM DIMATIX, Santa Clara, CA — *Mechanical Intern*   *Jun. 2018 -Sept. 2018*

Productive Robotics (NDA), Carpinteria, CA — *Mechanical Intern*   *Jun. 2017 -Sept. 2017*

SOFTWARE PROJECTS

Contact Book App -- *Android App*   *Jul. 2021 – Aug. 2021*

- Developed an Android app in **Java** using **Android Studio** that allows users to register & login their own accounts, allowing users to **CRUD** phone contacts information and dial in.
- Used **MVVM** architecture as the app's structure and implement **RecyclerView** to seamless display all the contacts for the current user. Displayed data with **Android Jetpack UI** components.
- Used **Gradle** to setup dependencies; enable user registration and management with **Firebase** authentication.
- Used **XML** to design the **UI** and stored contact info in **SQLite** database using **Room**.

Employee Management Portal — *Web Application*   *Dec. 2020 – Feb. 2021*

- Designed a web-based employee management system to organize and store department and employee information using **MS SQL**, **.NET Core API** and **Vue JS**.
- Created **Bootstrap** table; populate data by consuming the **Rest API** using **Axios**; added routing using **Vue** router.
- Enable **CORS** and **JSON** serializer in the project.

Drone Based Surveillance System (NDA) -- *@Cal Poly, SLO*   *Sept. 2018 – Jun. 2019*

- Designed a drone surveillance system with Image Processing and **UWB** (ultra-wide band) positioning system.
- Incorporated **MySQL** as the database to store intruder images and developed guided flight algorithms using UWD sensors for position control (20cm).
- Used **Robot Operating System** to Wi-Fi control the drone and applied image processing using **OpenCV**, to identify intruders and used UWB position information to move the drone towards the intruder.
- Utilized **C++**, **Python**, **Linux**, **Raspberry Pi**.

Connect Four Game-- *@Northeastern University*   *Mar. 2021 – May. 2021*

- Designed and developed a graphic game version of the popular board game connect four using Python.
- Used **Processing.py** to achieve graphical user interface and implement **Event Listener** to trigger animation to show the game play.