

Chun (Karina) Zhang

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Education

Carnegie Mellon University, Pittsburgh, PA

Expected Graduation: 05/2024

M.S. in Mobile and Internet of Things Engineering

The University of Wisconsin-Madison, Madison, WI

Graduated: 05/2022

B.S. in Computer Engineering | B.S. in Computer Sciences | GPA: 3.68/4.0

Honors: Dean's Honor List, 6/8 semesters

Core course: *User Interfaces, Computer Graphics, Artificial Intelligence, Database Management Systems, Algorithms, Java Programming III, Computer Architecture, Computer Systems Structures (C), Digital System Design and Synthesis*

Computer Skills:

Proficient: Java, JavaScript, React, React Native, HTML, CSS, C, Verilog, SQL, three.js, Rhino, ModelSim

Familiar: C++, Python, Babylon.js, Node.js, MATLAB, Dialogflow, Adobe Photoshop, Adobe Premiere Pro, Excel

System: Windows, Linux, MAC OS, Git

Language: English (fluent), Mandarin (fluent)

Professional Experiences

MIRROREAL INC. – Volunteer Front End Developer

Remote

07/2022 – 08/2022

- Develop a 3D Metaverse web app with a team using the WebGPU engine of Babylon.js to optimize graphic performance
- Design and implement interactive 3D user interfaces and 3D animation generators

Connected and Automated Vehicle & Highway Research Group – Research Assist. Madison, WI

09/2020 – 12/2021

- Implemented longitudinal and lateral control algorithms to control the vehicles' movements through CARLA Python API
- Researched decision-making (lane-changing and car-following) models with Deep Reinforcement Learning (DQN)

Jiangyun Intelligent Technologies, Ltd. – Algorithm Developer Intern

Remote

05/2020 – 07/2020

- Optimized SIFT algorithm and Affine Transform to rotate and rescale micro-industrial components in pictures to be level
- Developed a Machine Learning model with a team of 4 based on the Yolov5 Algorithm and MM Segmentation using Pytorch to detect surface defects of these industrial components, obtaining a 95% accuracy

UW-Madison Undergraduate Learning Center – ECE Tutor

Madison, WI

09/2021 – 05/2022

UW-Madison Department of Computer Science – CS 354 Teaching Assist.

Madison, WI

09/2020 – 12/2021

Project Experiences

Graphics Town – 3D Computer Graphics Design

Madison, WI

03/2021 – 05/2021

- Designed and implemented a 3D animated world with web programming using JavaScript and three.js, where there is a community park in a forest with entertainment facilities and vehicle objects
- Allowed users to adjust the animated speed, interact with the world, and view the objects from different angles through moving and fixed cameras

React Native Mobile Fitness Application – Mobile App Design

Madison, WI

11/2020 – 04/2021

- Designed and built a fitness app with React Native framework, JavaScript, faculty-designed API, and React-Redux on IOS and Android platforms, enabling users to track the fitness goals, meals, calories/macronutrient intakes, and exercises
- Designed the UI using paper prototyping and interactive prototyping in Adobe XD
- Improved the design and built accessibility features by following Visual Design Principles and Heuristic Evaluation to enable users with visual impairments to use the app with voice over smoothly

React Course Selection Application – Web App Design

Madison, WI

09/2020 – 10/2020

- Designed and implemented an app with React framework, JavaScript, Bootstrap, and faculty-designed API, allowing users to search courses based on course information and interests, add/remove courses, and rate taken courses
- Designed a recommendation algorithm to recommend 5 courses based on course ratings, prerequisites, and users' interests

AI Handwritten Digit Classifier – AI Project

Madison, WI

06/2020

- Applied Backpropagation algorithm and built a Multi-Layer Neural Network on MINST hand-written digit dataset
- Used pixel intensities of digit images as inputs and tested on new images to classify which digits the images display

How Much Milk – Java Project

Madison, WI

12/2019 – 01/2020

- Implemented a Graphic User Interface (GUI) using Object-Oriented Paradigm to read milk production data of 120 local farms collected in CSV files, handle data errors, and analyze and report milk weights annually and monthly
- Allowed users to interact with UI designed with JavaFX, including editing data in CSV files and generating table reports

Student Organization Experiences

Coding for Good (CFG) Student Organization – Web Developer

Madison, WI

01/2020 – 05/2021

- Helped with the front-end development of the CFG website, using JavaScript, CSS, HTML, Bootstrap, and Node.js
- Put the website into use for over 50 members to register, update profiles, and sign up for programming projects