# KELVIN ZHENG

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Senior computer science student with full stack web development experience. Diligent and dependable worker eager to contribute as a Software engineer to the development of innovative applications.

### **EDUCATION**

### TEXAS A&M UNIVERSITY College Station, TX

Bachelor of Engineering in Computer Science with a Math Minor

May 2025

- GPA: 4.0/4.0, 86 institution credit hours, 111 total credit hours
- Relevant Coursework: Discrete structure computing, Database Systems, Data structures and algorithms, Computer Graphics, Computer organization, Design and Analysis of Algorithms

### **WORK EXPERIENCE**

### **Robotic Programming by Demonstration Researcher**

May 2024 - August 2024

Texas A&M Engineering Experiment Station, Figures Program

- Developed applications to enable real time control of TeachMover robot using demonstration data from Leap Motion Controller or Microsoft Kinect v2 sensors
- Implemented inverse kinematics, multithreading, gesture programming, and buffering in order to optimize sensor performance and improve real-time synchronization of sensor and robot

### **PROJECTS**

#### **Restaurant Website**

- Collaborate with a team to develop a comprehensive full stack web project that supports multiple user roles such as customers, cashiers, managers, and administrators
- Implemented key functionality includes taking orders, menu customization, employee authorization management, inventory control, and report generation
- Leveraged front-end technologies including JavaScript, HTML, and CSS, while employing the Java Spring framework and a PostgreSQL (PSQL) database for the backend architecture
- Utilized APIs such as Google OAuth, Google Translate, and Open-Meteo(Weather API) to enhance the user experience and provide further functionality

### **Cybersecurity Program Management Application**

- Engineered a robust scalable Python Flask web application with an SQLite database that aims to streamline the Texas A&M Cybersecurity Center (TAMCC) data management process
- Design an interactive portal that enables students to input personal data, track applications, update program progress, and upload application documents
- Integrated critical staff functionality including program data management, user administration, progress tracking, and event coordination

# **Medical Image Classification Machine Learning Model**

- Optimize a deep learning model's performance on an imbalance medical image dataset from Medmnist
- Achieved an AUC score of 0.93 through experimenting with data augmentation, learning rate, regularization, and different neural nets(GoogleNet and multiple Resnets)

# **Bytes - Meal Plan Sharing Application**

- Developed a full-stack Ruby on Rails application to help facilitate the donation of meal credits to students in need in correspondence with Teamup Apps for good
- Enables online or in-person donation of meal credits along with data tracking and analysis tools for schools

### **ADDITIONAL SKILLS**

- Languages: C++, Python, Java, Javascript, Ruby, SQL, HTML/CSS, Haskell
- Technologies: Git, React, Flask, Ruby on Rails, Java Swing, OpenGL, Linux, Ubuntu, Matplotlib, Numpy, GDB