Chieh-An Chen

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EDUCATION

The University of Texas at Austin - *Bachelor's of Science, Electrical and Computer Engineering* **Graduation Date: May 2024**
Current GPA: 3.76
Relevant Coursework: Computer Architecture, Software Implementation and Design I and II, Linear Systems and Signals, Circuit Theory, Intro to Embedded Systems, Digital Logic Design, Probability/Random Processes, Vector Calculus, Matrix/Matrices, Differential Equation and Linear Algebra, Discrete Math, Statics, Thermodynamics

SKILLS

Computer Skills: PyTorch, FPGA, Verilog, C/C++, Reactjs, JavaScript, jQuery, Python, Django, HTML/CSS, MATLAB, Object Oriented Programming, State Machine, SolidWorks, FEA Analysis
Languages: English and Mandarin (Native Speaker Fluency)

TECHNICAL EXPERIENCE

Computer Vision Research - Electrical and Computer Engineering , University of Texas at Austin   *December 2021 - Present*
Key Participant in Cross-View Matching Network for Video-Based Ground-to-Aerial Geo-Localisation led by Dr. Constantine Caramanis
- Plan to improve the result from the previous CVM matching network for image based ground-to-aerial geo-localisation results by at least 2% by improving the trained PyTorch neural network
- Develop a new model and neural network taking time and distance as parameters to allow CVM for video-based geo-localization using Pytorch

Code2College
Software Development Intern (Mobile App Development) Team Lead; Full-time *May 2021 - September 2021*
- Used React-Native and Firebase to build a social media app currently used by 1000+ Code2College students and employees
- Created a 30-hour curriculum over Mobile App Development with currently being used by the organization daily
- Directly managed a team of 12 other interns, oversaw the work done by the Mobile App Development, Mobile App Curriculum, and Embedded System Curriculum Teams, and instructed online Python coding classes for hundreds of high school students

Software Engineering Intern; Full-time *May 2020 - August 2020*
- Developed a one-stop shop CRM-style Learning Management System for the organization's member information and program curriculum that is deeply embedded into the organization with thousands of users.
- Used Python and Django to create back-end logic for analyzing student performance data and customized UI for different user roles
- Used Jquery to create interactive features such as searching,customized data analysis, and more
- Utilized the Agile methodology and Github for project management

Mechanical Engineering Undergraduate Research Assistant - Mechanical Engineering , University of Texas at Austin   *January 2021 - Present*
Designing Experiment to Probe Fracture Toughness of Multilayer Graphene for Applications in Acoustic Transducers led by Dr. Michael Cullinan
- Designed a standardized procedure to test the quality of coupons developed from CVD-synthesized multilayer graphene samples, an experiment to measure tensile strength and fracture toughness using an in-situ SEM tensile tester, and determined the functional requirements of the test system
- Used FEA analysis and result to create a special transfer method to transfer 400-nm graphene coupon onto the tensile tester clamps to prevent damage and overcome graphene's naturally low fracture-toughness for application in acoustic transducer designs

Projects

Epic Escape - Embedded Systems | C/C++, Arm Assembly, TM4C Microcontroller, Color TFT LCD Display - ST3775R, DAC
- Built from scratch a virtual escape room running on a TM4C microcontroller with vivid visuals displayed on the LCD screen to assist players navigate through the room using 4 controlled buttons. Appropriate sound effects are embedded in the program for better user experience and implemented through a DAC.

AceIt - Website | Python, HTML/CSS, JavaScript
- Developed a website to connect high school students to additional free educational resources and tutors based on their geolocation
- Installed a chat room feature to allow students to communicate with their peers anonymously and seek mental health support
- Implemented filtering features to censor our inappropriate use of words
- Won 2nd place at the Web Design Demo Day Competition with a scholarship from Google

MusicLover - Mobile Social Media App | Reactjs and Firebase
- Developed a social media app that can run on both iOS and Android devices for music lovers to share their favorite music and create discussion posts

LEADERSHIP AND ACTIVITIES

Machine Learning and Data Science; *Corporate Officer* *July 2022 - Present*
IEEE; *Active Member* *August 2021 - Present*
Longhorn Racing; *DriveTrain Engineer* *September 2021 - Present*

ACCOMPLISHMENTS

Women in Engineering Scholarship *August 2020 - May 2024*
Generation Google Scholarship *August 2020*

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