

Yanting Chen

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EDUCATION

Northwestern University - Evanston, IL

09/2021–06/2023

- Master of Science; Major: Electrical Engineering

GPA: 3.80/4.00

Relevant Courses: Machine Learning; Advanced Computer Vision; Computer Graphics

Sun Yat-sen University - Guangzhou, China

09/2017–06/2021

- Bachelor of Engineering; Major: Electronic Information Science and Technology

GPA: 3.70/4.00

Relevant Courses: Data Structures and Algorithms; Computer Programming; Advanced Programming; Pattern Recognition and Artificial Intelligence

SKILLS

- Programming languages: Python, C#, MATLAB, JavaScript, HTML, CSS
- Human languages: Mandarin (Native), Cantonese (Native); English (Full professional)
- Others: Gitlab; Unit testing; OpenCV; AWS; Unity

INTERNSHIP

Leopard Imaging Inc. - Fremont, CA

07/2022–09/2022

Software Development Intern

- Developed image processing algorithms, programs, and quality assurance tools in a test-driven development environment to support Leopard Imaging's camera and image processing product development and services.
- Optimized and refactored proprietary functions in the manufacturing execution system with Django. Reduced over 3,000 lines of code. Developed design and testing requirements to support designers and system architects.
- Added functionalities to standardize QA protocols with PyQt. Performed smoke tests and unit tests to accomplish quality control goals for the auto-focus algorithms using py.test; opened and closed over 40 tickets.

LinKE Technologies Co., Ltd. - Zhuhai, China

07/2019–08/2019

Software Development Intern

- Assisted hardware engineers to develop admin dashboards with HTML, CSS, and JavaScript for IoT devices.
- Created user stories and managed project sprints with product designers, UX designers, and back-end engineers.
- Tested usability on tablets and smartphones; implemented accessible UI principles for all developed pages.

PROJECTS

Generating Audio for Muted Piano-Playing Video using Computer Vision - Northwestern U.

09/2021–12/2021

- Designed an ML/AI application that utilizes computer vision, pattern recognition, and deep learning algorithms to programmatically generate audio tracks based on the video signals of a piano performance in real time.
- Wrote core algorithms using MATLAB to accomplish keyboard extraction, key labeling, and key press recognition.
- Generated corresponding audio using an array model that maps the chord, beat, and tempo in the finished work.

Building an ECG sensor into a smartwatch for real-time cardiac monitoring - UC San Diego

07/2020–09/2020

Internet of Things Researcher, Undergraduate Research Program

- Assisted Prof. Patrick Mercier at UC San Diego to design and prototype ECG sensor application in smartwatches.
- Researched design principles and technical documents of wearable devices, ECG, and advanced ECG amplifiers.
- Designed an ECG amplifier prototype in LTSpice to meet specs, including low power consumption and low noise.
- Conducted literature reviews; updated design requirements and identified electronic components; triaged bugs.

Module Design of Interactive IntelliSense - Sun Yat-sen University

09/2019–12/2019

Software Engineering Project Lead

- Prototyped a "robot teacher" that uses gesture and speech recognition, text-to-speech synthesis, and motion control technologies to provide interactive learning experience for students in underdeveloped regions of China.
- Developed the front-end interface, back-end APIs, and web services using Python using the agile methodology.
- Established test-driven development patterns; tracked progress with management tools and delivered on-time.

PUBLICATION

Wenyu Tao, Zhiqiang Dai*, Xiangwei Zhu*, Qixiang Fu, Fang Li, Weixiang Chen, **Yanting Chen**. "A sky region segmentation method for outdoor visual-inertial SLAM." *Sensor*, 25 November 2020. Manuscript ID: sensors-1032887.