Lin, Kai-Po

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EDUCATION

National Chung Cheng University (CCU), Chiayi County (Sep 2015 – Jun 2019)
Degree: Bachelor
Major: Computer Science and Information Engineering (CSIE)
Overall GPA: 3.79/4.30; GPA for last two years: 4.21/4.30; Ranking: 5/52
Received two Presidential Honor Awards

RESEARCH EXPERIENCE

Machine Vision and Learning Laboratory, CCU (Sep 2017 – Jul 2019)
Laboratory Intern

- AI City Challenge Project: Utilizing Cycle GAN to make the generator separately train five different directions of car motion via large datasets with different brands and 10,000 distinct cars, thereby stimulating the generator to mimic and produce a new style of car with five different directions of motion
- Writing Calligraphy with Robotic Arm Project: Utilizing Cycle GAN to make a robotic arm learn a dataset with numerous characters written in the slender gold and semi-cursive scripts; by labeling the strokes of the characters, the robotic arm can write them with more accurate strokes

Smart Living Technology Research Center, CCU (Sep 2018 – Apr 2019)
System Programmer

- Programmed and optimized a facial recognition system for the National Intercollegiate Athletic Games (with about 7,500 competitors) using OpenCV and implementing Flask to transmit and display predictions from backend to frontend using the JSON format
- Designed and arranged the user interface on the frontend website with OpenCV, HTML, and CSS

Viscovery, Taipei (Jan 2019 – Feb 2019)
Computer Vision Intern

- Programmed a facial recognition system for the company to predict the user's gender, age, and facial expressions through Caffe, Keras, and OpenCV; connected the source code onto the corporation's private GitLab and its server
- Optimized the response time (less than 1s) and the accuracy (about 70%) to predict gender, age, and facial expression of the facial recognition system

Embedded System Laboratory, CCU (Sep 2017 – Dec 2018)
Undergraduate Student

- Used WGAN-GP and image processing to create a generative adversarial network model to do fashion design
- Fetching men's fashion clothing from the Internet by Python (web crawling)

COURSE PROJECTS

Introduction of Image Processing (Feb 2019 – Jun 2019)
- Implemented techniques often used in image processing with MATLAB; functions include different color standard conversion, Sobel operator, Laplacian operator, and histogram equalization

Machine Learning (Feb 2018 – May 2018)
- Designed a facial recognition algorithm with Python (45% accuracy) and compared with the algorithms that implemented with Keras (30 epoch, VGG16, 81% accuracy)
- Identified dog breeds with TensorFlow

Introduction of Multimedia Technology (Sep 2017 – Dec 2017)
- Designed a facial recognition algorithm by MATLAB with 45% accuracy
- Conducted waveform analysis of vocals, noise and mixed sounds on time domain with MATLAB
- Created Virtual Reality boxing game with Unity

Introduction to Artificial Intelligence (Oct 2017 – Nov 2017)
- Designed a chess game with solution to N-queen problem in Python
- Wrote a Pacman-style game in Python
- Used Random Forest with K-Fold Validation to train the labels of people who click or unclick on ads from a .csv file (about 100,000 data items in total and 90,000 people unclicking on the ad), with 99.9% accuracy and 15% on the f1-score (5^{th}/20)

EXTRACURRICULAR ACTIVITIES

CSIE Dept., CCU (Sep 2015 – Jun 2019)
Deputy Class Representative
- Carried out class booking
- Modified essential events with the CSIE Dept. office

Feelings Guitar Club, CCU (Sep 2016 – Jun 2017)
Head of Education
- Designed course materials to teach guitar lessons to less experienced students and gave feedback on performances
- Held contests and screened for potential competitors for Guitar Club competitions
- Led and supervised musical concerts held by younger students
- Discussed upcoming events and reviewed all works after performance twice a week

CSIE Dept. Student Association, CCU (Sep 2016 – Jun 2017)
Head of Public Relations
- Held mixers and Christmas party (about 160 attendees) with different departments
- Attended weekly meetings to discuss all organizations and schedules of association events

AWARDS

AI Hackathon Competition Honorable Mention, CCU Smart Living Technology Research Center (Aug 2019)
Team Leader
- Ranked 1st out of 7 in Autonomous Driving: High Solution Scene Depth Prediction based on LIDAR and video, using the self-supervised depth-completion model published in ICRA 2019

Creative Software Applications Contest Honorable Mention, Dept. of Information and Technology Education, Ministry of Education (Apr 2019)
Team Leader
- Implemented sparse coding to correspond the objects in scribble with Caltech 101 and utilized Siamese Network to convert scribbled into masterpieces with MATLAB

Central District Programming Competition Honorable Mention, National Changhua University of Education, Dept. of Computer Science and Information Engineering (Dec 2018)
Team Leader
- Ranked 5th out of 17 in a programming competition among National Chiao Tung University, National Tsing Hua University, and National Cheng Kung University

ITSA Annual Collegiate Programming Contest Honorable Mention, Dept. of Information and Technology Education, Ministry of Education (Jun 2017)
Team Member
- Earned Honorable Mention (12th/98) in ITSA Annual Collegiate Programming Contest, which participants included students of all colleges in Taiwan

VOLUNTEER WORK

Kaiyuan Hall Fusong Elder Care Center, Chiayi County (Feb 2018 – Jun 2018)
Nursing Aide
- Accompanied and organized recreational activities for elderly people

Zhug Dung Elementary School, Hsinchu County (Feb 2015 – Jul 2016)
Member, Equipment Section
- Organized three-day summer camp: practiced shows for the children, managed camp equipment, edited memoir from photos and videos

SKILLS

Computers: C, C++, Python, MATLAB, Java, MySQL, Unity, TensorFlow, Keras, PyTorch, Caffe, OpenCV, ANTLR, HTML, CSS, ROS, Verilog

Systems: Windows, Ubuntu, Macintosh, Docker

Interests: Chess, Go, basketball, baseball, table tennis, badminton, volleyball, swimming, cycling, guitar, piano