Yiran Ding 丁羿然

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RESEARCH INTEREST

Machine Learning System(MLsys), Machine Learning, Computer Architecture; Information Theory, Computer Version.

EDUCATION

Hangzhou Dianzi University **HangZhou, China**
School of Electronics & Information(School of Microelectronics) *September,2020 - Now*
GPA: 3.73/4.00 (4.34/5.00, 5%)

RESEARCH EXPERIENCE

Medical Image Processing (Nov. 2021): *Nov. 2021 - Now*

- Led and designed the project of automatically evaluating finger tapping videos of Parkinson's disease patients.
- Developed LSTM-FCN based model to classify patients. The result has 83.7% accuracy, which in dataset of this paper defeats the state-of-the-art results in literatures.
- **Utilized**: Pose estimation (Mediapipe Hands), RIFE algorithm (Time Series Interpolation), LSTM, FCN.

Mathematical Modeling: MCM/ICM 2022 E *Feb. 17-21 2022*

- Led the project of "Forestry for Carbon Sequestration to Forest Management."
- Developed logistic equation based model to estimate the carbon sequestration of different trees species. (The competition results will be announced at the end of May)
- **Utilized**: Least Squares method, Monte Carlo method.

Embedded System Development *Mar. 2022 – Now*

- Leading the project of "Remote platform of circuit experiment"
- Developed robotic arm with gestural control to build experimental circuits remotely. (Still in progress)
- **Utilized**: Gesture Recognition, Magnetic interface

PROFESSIONAL DEVELOPMENT

Skills: C, C++, Python, Matlab / Linux, Risc-V / Verilog, Quartus(FPGA), Keil(STM32)
Certificated Online Courses: MIT 18.06: Linear Algebra, Andrew Ng: Machine learning, THU: Data Structures, Hung-yi Lee: Machine learning 2021, CMU 15-213: Intro to Computer Systems (CSAPP), (Ongoing), MIT 6.s081: Operating System Engineering, (Ongoing)

AWARDS AND ACTIVITIES

Scholarship

- The First Prize Scholarship (Three semesters), Award rate 5%
- Scholarship of Provincial Government, Award rate 5%

Activities

- **Vice Minister** of **Data Processing Department**, Technology Association of the Faculty of Mathematics
  - Taught new students about programming skills such as Python, Matlab, etc.
  - Instructed them to solve NP-hard Graph Theory Problems with Heuristic Algorithms, and Time Series Forecasting Problems with LSTM Neural Networks.