Hangzheng Lin

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Education

University of Illinois at Urbana-Champaign (UIUC)

Champaign, IL

Master/PhD of Electrical and Computer Engineering

Aug.2021 - Jun. 2023

• GPA: N.A. / 4.0

University of Illinois at Urbana-Champaign

Champaign, IL

Bachelor of Science in Computer Engineering

Sept. 2017 - Jun. 2021

• GPA: 3.93 / 4.0 **Zhejiang University**

Hangzhou, China

Bachelor of Engineering in Electronic and Computer Engineering

Sept. 2017 - Jun. 2021

• GPA: 3.94 / 4.0

- Relevant Coursework Applied Parallel Programming, Communication Networks, Natural Language Processing, Machine Learning, Data Science and Engineering, Data Mining, Computer System Engineering, Artificial Intelligence, Data Structures, Interactive Computer Graphics, Calculus, Differential Equations, Discrete Math, Linear Algebra, Random Process.
- Selected Honors [1] UIUC High Honors at Graduation(2021) [2] Outstanding Graduate of Zhejiang Province (top 4%, 2021) [3] Outstanding Graduate of Zhejiang University (2021) [4] ZJUI Institude Dean's List (2020) [5] Zhejiang University Scholarship First Prize (top 3%, 2019) [6] Top Ten Social Practice Teams (Volunteer team, 2019) [7] Outstanding Winners (0.1%) and the Informs Award (No.1 world ranking 0.02%) of MCM (2019).

Research Experience & Competition

Accurate 3D Tooth Pose Estimation for Diagnosis using Deep Learning

Remote

ECE Department, Zhejiang University

May. 2021 - Dec.2021

Advisor: Prof. Zuozhu Liu, ZJU [link]

- Introduced the first approach with deep learning methods for accurate and automatic 6D tooth pose estimation, which is already integrated into clinical software for orthodontics in China.
- Demonstrated the excellent performance of our method with comprehensive experiments on a newly collected large dataset.
- Revealed the relationship between axial orientation difference of occlusive teeth and gingival atrophy, which might be helpful for dentists to identify the gingival atrophy in advance.

Deep Learning Models for Human Aggression Detection

Hangzhou, China

ECE Department, University of Illinois at Urbana-Champaign

May. 2020 - May. 2021

Advisor: Prof. Volodymyr Kindratenko, UIUC [link]

- Created our own dataset which we manually cut and labeled from the internet to evaluate its flexibility.
- Reproduced and compared the performance of several vision-based neural network models, including the Transfer Learning model, Conv-LSTM and 3D convolution model, on human aggressive behavior.
- Developed new CNN models, including optical flow based VGG and transfer learning + LSTM models.

INTERNSHIP EXPERIENCE

Huawei HiSilicon.

Hangzhou, China

AI Chip Operator Developer

Jul. - Aug. 2019

- Accelerated data transmission by optimizing the way to allocate the moving data and divide data into parts with their corresponding buffer and cache.
- Reduced the transmission delay from 50ms to 3ms.

Leadership & Extra-curricular Activities

• Teaching Assistant, ECE 120 - Introduction to Computing (UIUC)

Aug.2021 - Present & Jan. - May 2021

• Teaching Assistant, MATH 286: Intro to Differential Eq Plus (ZJU)

Jan. – May 2020

• Minister, Editorial Department, University New Media Center

Aug. 2018 - Aug. 2019

Skills

Programming Languages and Tools: Python, C, C++, SystemVerilog, MATLAB, LaTeX, Git

Deep Learning Frameworks: TensorFlow, PyTorch