CHENYE YANG

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EDUCATION

Columbia University, United States *Sep 2019 - Apr 2021*
M.S. Advanced Research Specialization in Electrical Engineering **Cumulative GPA: 3.92/4.3**
Nikola Tesla Electrical Engineering Scholarship. Teaching Assistant for EECS E4764

Xi'an Jiaotong University, China *Sep 2015 - Jun 2019*
B.Eng. in Automation **Cumulative Grade: 89.42/100**
Honors Electronic and Information Engineering Program (QianXuesen Class)

RESEARCH EXPERIENCES

Fever Screening System *Prof. Xiaofan (Fred) Jiang, Columbia University, Jan 2020 - present*
Research Intern in Columbia Intelligent and Connected Systems Lab.
- A low-cost system based on RGB-thermal camera for continuous fever screening of multiple people without human interaction, deployed in a restaurant and hospital clinic in New York City.
- Contribute: Match multiple RGB and thermal heads, train and deploy YOLOV3 (head detection) and FSA-Net (head orientation regression), estimate distance using non-identical RGB and thermal camera, etc. Paper writing.
- One paper in review for IPSN 2021 and one poster accepted by SenSys 2020 Poster. Columbia news. Project website.

Khameleon Scheduler in Reinforcement Learning *Prof. Eugene Wu, Columbia University, Jul 2020 - Sep 2020*
Research Intern in WuLab Columbia University.
- The server-side scheduler involves a complex optimization based on available resources, predicted user interactions, and response quality levels to maximize user-perceived interactivity in real-time.
- Contribution: Create the simulated RL environment, write Q-Learning and SARSA based prefetching scheduler to trade off latency for response quality with the progressive encoded response in cloud-based interactive applications.

Optical Quantum Information *Prof. Xiaoqi Zhou, Sun Yat-Sen University, Feb 2019 - Jun 2019*
Undergraduate Thesis. Research Intern in Optical Quantum Information Lab.
- Simulation of integrated optics for quantum information applications.
- Contribution: Design methods to solve optimal parameters of grating coupler based on regression analysis and constrained optimization problem solving. Conduct simulation experiment with one-dimensional grating coupler.

Cyber-Physical Energy Systems *Prof. Jiang Wu, Xi'an Jiaotong University, Oct 2017 - Feb 2019*
Member of XJTU Information-technology Talent Program.
Research Intern in Ministry of Education Key Lab for Intelligent Networks and Network Security.
- Proposed centralized K-means algorithm, using weighted combination of features from PCA and prior knowledge. Expanded it to distributed cases, using parameter consensus and feature transferring method.
- Contribution: Write centralized & distributed K-means clustering algorithms for massive data on energy demand side. Analyze the results obtained from the power system in a city. Paper writing.
- Two papers written and one accepted by Chinese Control Conference 2018.

PUBLICATIONS

- Peter Wei, **Chenye Yang**, Hengjiu Kang, Xiaofan Jiang, "SIFTER: A Low-Cost Skin Temperature Sensing System for Multi-Person Continuous Fever Screening" *In review for IPSN 2021*.
- Peter Wei, **Chenye Yang**, Xiaofan Jiang, "Low-Cost Multi-Person Continuous Skin Temperature Sensing System for Fever Detection: Poster Abstract" *SenSys 2020 Poster*. DOI:10.1145/3384419.3430398
- Pengyuan Liu, **Chenye Yang**, Jiang Wu, "Hybrid Features Based K-means Clustering Algorithm for Use in Electricity Customer Load Pattern Analysis" *2018 37th Chinese Control Conference*. DOI:10.23919/ChiCC.2018.8483451

TECHNICAL SKILLS

Programming: Skilled in Python, Matlab; Familiar with HTML, R, C/C++/SystemC, C#, VerilogHDL
Software & Tools: **Design:** Autodesk Inventor, Altium Designer, LabVIEW, FDTD Solutions
Others: GitHub, Linux, LaTeX(Overleaf), Docker, TensorFlow, OpenCV, Spark, AWS, GCP

For more information, please visit my website at *yangchenye.github.io*