

Xuan Ju

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EDUCATION

Tongji University

Shanghai, China

B.S. in Computer Science

Sep 2018 - Jul 2022

- GPA: **4.85/5.0**, Ranking: **Top 1%** (including non-experimental-area students)
- Relevant Coursework: Pattern Recognition, Data Structures, Operating Systems, Principle of Compilers, etc.

Sep 2018 - Jan 2020

Minor Degree in Mathematics and Applied Mathematics

- Studied in **Mathematical Intensive Training Class** (Innovation Experimental Area)
- Relevant Coursework: Mathematical Analysis, Advanced Algebra, Theory of Probability, Statistics, etc.

HONORS & AWARDS

- Scholarship:* **National Scholarships**, 2/156 (Oct 2021)
- Scholarship:* **National Scholarships**, 1/156 (Dec 2020)
- Scholarship:* **QiDi Scholarship**, 1/156 (May 2022)
- Competition:* **First Prize** in "Challenge Cup" National College Students Contest of Extracurricular Academic and Scientific Work (March 2022)
- Honor:* **Shanghai outstanding graduates** (April 2022)
- Competition:* **Gold award** in "Challenge Cup" Shanghai College Students Entrepreneurship Plan Competition (Jun 2022)
- Competition:* **First Prize** in "Challenge Cup" Shanghai College Students Contest of Extracurricular Academic and Scientific Work (May 2021)
- Competition:* Second Prize in Shanghai College Students Computer Application Ability Competition (May 2022)
- Honor:* Outstanding Student of Tongji University (Jan 2021)
- Scholarship:* Guo Xie Birong Scholarship (Dec 2019)
- Competition:* Honorable Mention in Mathematical Contest In Modeling (Apr 2021)

PROJECT & INTERNSHIP

Internship in CURE Lab

Dec 2021 - Jul 2022

Work in CURE Lab under the supervision of Qiang Xu

- Research:* We propose a simple baseline framework for videobased 2D/3D human pose estimation that can achieve 10x efficiency improvement over existing works without any performance degradation, named **DeciWatch**.
- Research:* We propose a novel plug-and-play refinement network, namely **SmoothNet**, which can be attached to any existing pose estimators to improve its temporal smoothness and enhance its per-frame precision simultaneously.

Internship in SenseTime

Dec 2021 - May 2022

Research Institute

- Open Source Code Base Construction:* Participate in the construction of MMHuman3D
- Research:* Work on the topic of efficient and smooth human pose estimation

Internship in IDEA (粤港澳大湾区数字经济研究院)

Jun 2022 - Jul 2022

Research Institute

- Research:* Work on the topic of 3D pose estimation

Fault Detection of High-speed Railway Pantograph Based on Digital Image Analysis

Apr 2019 - Nov 2020

Project Leader

- Honor:* Successfully concluded as a **National College Student Innovation and Entrepreneurship Training Program** in Jun 2020
- Honor:* Awarded Tongji University Dream Fund in Nov 2019 (**Top 5 projects**)

PUBLICATIONS

- Zeng A, **Ju X**, Yang L, et al. DeciWatch: A Simple Baseline for 10x Efficient 2D and 3D Pose Estimation[J]. arXiv preprint arXiv:2203.08713, 2022. [[Paper](#)], accepted to **ECCV2022**
- Zeng A, Yang L, **Ju X**, et al. SmoothNet: A Plug-and-Play Network for Refining Human Poses in Videos[J]. arXiv preprint arXiv:2112.13715, 2021. [[Paper](#)], accepted to **ECCV2022**
- Yang C, **Ju X**, Liu E, et al. Blockchain-based indoor location paging and answering service with truncated-geo-indistinguishability[J]. **IET Blockchain**, 2021. [[Paper](#)]
- Lin Y, Wu M, **Ju X**, et al. Finite Element Simulation Study on Wear under Pantograph-Catenary System with Electric Current[C]//2020 IEEE International Conference on High Voltage Engineering and Application (**ICHVE**). IEEE, 2020: 1-4. [[Paper](#)]

MISCELLANEOUS

- Skills:** Python, C/C++, MATLAB, Verilog HDL, HTML, JavaScript, CSS, Git, LaTeX, MySQL
- Research Interests:** Artificial Intelligence, Computer Vision, Motion Understanding
- Leadership:** Tongji University Frisbee (TJUF) Spirit Captain, Member of class' leading group, etc.
- Activities:** Tongji University Student Aid Publicity Ambassador, Operation of [Pandonut](#), etc.