YEZHEN CONG
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EDUCATION

Stanford University, Department of Computer Science　　　　　　　　　　　　　To enroll in Sep. 2021

Master of Science in Computer Science

Tsinghua University, School of Software　　　　　　　　　　　　　　　　　Aug. 2017 – Jun. 2021

Bachelor of Engineering in Software Engineering

- **Overall GPA: 3.98**/4.00 (**Rank: 1**/81), Major GPA: **3.99**/4.00 (**Rank: 1**/81), scored **A+** (**Top 1%**) in 8 major courses
- **Relevant Coursework:** OOP, Data Structure and Algorithms, Computer Architecture, Web Development, Computer Networks, OS, Software Engineering, Compilers, DB, Mobile App Development, Graphics, AI, ML, Embedded Systems
- **Selected Honors and Awards: Outstanding Graduates** and Outstanding Undergraduate Thesis; **Top 1% Scholarships** for 3 years at Tsinghua University; **SenseTime Scholarship** for AI research (29 recipients among all Chinese undergraduates); **First Prize** in Tencent WeChat Mini-Program Development Competition 2020, Mini-Game Track (4/171 teams from universities all over China); **Silver Medal** in Open Images 2019, Visual Relationship Track (Top 10%)

PUBLICATION

- He Wang*, **Yezhen Cong***, Or Litany, Yue Gao and Leonidas J. Guibas. 3DIoUMatch: Leveraging IoU Prediction for Semi-Supervised 3D Object Detection. *2021 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2021)* [link]

WORK EXPERIENCE

SenseTime, Beijing, China

Intern at Department of Deep Learning Platform and Tools　　　　　　　　　　　　Nov. 2020 – Aug. 2021

- Made key contributions to developing and maintaining MMDetection3D (2nd major contributor in recent year), an open-source 3D detection and segmentation platform of SenseTime with around 1500 stars on Github (~1k star growth since joined)
- Implemented new features and new methods, e.g., ImVoteNet; Reviewed 40+ pull requests and answered 30+ issues
- Solely carried out a complicated codebase refactor plan on unifying different coordinate systems and bounding box notations, which includes the modification and addition of over 5,000 lines of code from 100+ files, affecting all 16 detection algorithms

Research Intern at OpenMMLab　　　　　　　　　　　　　　　　　　　　Mar. 2020 – May 2020

- Conducted research on single-stage instance segmentation, wrote literature surveys for the department
- Improved an MMDetection algorithm by implementing semantic fusion, corner pooling and iterative contour point regression

SELECTED RESEARCH EXPERIENCE AND PROJECTS

Stanford University, Department of Computer Science　　　　　　　　　　　　Apr. 2020 – Nov. 2020

Research Assistant to Prof. Leonidas J. Guibas, ACM fellow, IEEE fellow

- Proposed a novel semi-supervised method for 3D object detection based on pseudo-label propagation with careful filtering mechanisms, outperforming the prior art significantly on three object detection benchmarks, ScanNet, SUNRGB-D, and KITTI
- A paper was published at CVPR 2021; The corresponding Github repos have 100+ stars

Tencent WeChat Mini-Program Development Competition 2020　　　　　　　　May 2020 – Aug. 2020

- As team leader, designed a creative, playable and user-friendly WeChat Mini-Game called Yin-Yang, and won the First Prize
- Implemented the game using Cocos Engine; Created the game art assets ourselves with online resources and Photoshop; Improved the smoothness and speed of the game by using techniques such as resource preloading and node pool recycling

Tsinghua University, School of Software　　　　　　　　　　　　　　　　Apr. 2019 – Nov. 2019

Research Assistant to Assoc. Prof. Yue Gao

- Proposed a novel rotation-invariant point cloud network module which increased PointNet++ and RS-CNN an increase in classification accuracy over 200% under random SO(3) rotation, outperforming the prior art remarkably
- Awarded Outstanding Oral Presentation at Tsinghua University; Submitted a paper to CVPR 2020 as joint first author

Kaggle Open Images 2019 – Visual Relationship Track　　　　　　　　　　　Aug. 2019 – Oct. 2019

- Preprocessed the raw competition data; Implemented a detector based on SOTA work and tailored it to the task to achieve higher-quality bounding boxes, which improved the visual relationship detection performance, helping us win a Silver Medal

SKILLS

Programming
　　Proficient: Python, PyTorch, C/C++, Java, Shell
　　Intermediate: JavaScript, MATLAB, SQL, Assembly, TensorFlow, OpenCV, CUDA

Language
　　English: Fluent, TOEFL (iBT) score 115/120, GRE 339/340