David Yan

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Education

Princeton University 2022 - 2026
Bachelor of Science in Engineering - Computer Science *Current GPA: 3.971/4.0*

Skills

Languages: Python, Golang, Bash, Java, C/C++, LaTeX, MATLAB, R
Tools/Libraries: Blender, Pytorch, Unreal Engine, Pytest, Numpy, Pandas, Docker, OpenCV, Git, UNIX Shell

Publications

1. Alexander Raistrick*, Lingjie Mei*, Karhan Kaan Kayan*, **David Yan**, Yiming Zuo, Beining Han, Hongyu Wen, Meenal Parakh, Stamatis Alexandropoulos, Lahav Lipson, Zeyu Ma, Jia Deng. Infinigen Indoors: Photorealistic Indoor Scenes using Procedural Generation. *CVPR*, 2024.

Experience

Computer Vision Research - Princeton Vision and Learning Lab January 2023 - Present

- Researching synthetic data generation for foundational computer vision tasks
- Developer for the Infinigen project, a procedural generator of diverse, high-quality training data for computer vision research.
- Created an 3D asset export utility with Blender Python scripting that enables the automatic conversion of generated Infinigen assets into standard file formats

Teaching Assistant Feb 2024 - Present

- COS240 (Discrete Math) - Spring 2024

HackPrinceton Organizer - Operations Team September 2022 - 2024

- Worked closely with team members to manage admissions, housing, and food for over 200+ hackers

Writer - DailyPrincetonian Data Team September 2022 - 2024

- Performed data analysis on 20 years of Princeton eating club tax data collected from public archives

Research Assistant - Center for Energy and Environmental Policy June 2022 - August 2022

- Analyzed building data from Korean provinces to determine correlations between building age, square footage, and building usage type to inform the development of solar power infrastructure in Korean cities

Research Scholar - Research Science Institute June 2021 - August 2021

- Investigated the relationship between human visitation and CO2 levels in Carlsbad Caverns National Park by analyzing CO2 and foot-traffic database
- Developed error correction algorithms in R to counteract systemic deviations that accumulated over time in monitoring equipment

Honors and Awards

Shapiro Prize for Academic Excellence 2023

- Awarded to the top 3% of Princeton freshman and sophomore students for academic achievement

U.S. Presidential Scholar 2022

- One of 161 U.S. high school graduates chosen and honored by the White House

Research Science Institute (RSI) Scholar 2021

- One of 52 U. S. high school students chosen to attend the 38th RSI hosted by MIT and Center for Excellence in Education

Past Publications

Co-Inventor of Electrochemically Driven Carbon Dioxide Separator 2020

- U.S. patent Serial No. 63/027,760, 2020; First to reduce the invention to practice
- Provided the only experimental data used to obtain a $1M research grant from the U.S. Department of Energy
- This patent was licensed for commercialization and has raised $10M in Series A seed funding