Eric Ryan Chan (510) 610 - 6241 erchan@stanford.edu ericryanchan.github.io

Education

Stanford University (Fall 2021 - Present)

- Ph.D. Candidate in Computer Science, specializing in Artificial Intelligence. GPA: 4.09/4

Stanford University (2019 - 2021)

- M.S. Candidate in Computer Science, specializing in Artificial Intelligence. GPA: 4.09/4

Yale University (2014 - 2018)

- B.S. Computer Science with distinction, B.S. Mechanical Engineering Sciences with distinction. *Cum laude, Tau Beta Pi*, GPA: 3.85/4

Select Research Experience

Stanford Computational Imaging Lab, Research Assistant (2020 - Present)

- Exploring 3D vision & graphics, with a focus on scene understanding and generalization across scene representations. Co-first-authorship on *pi-GAN[CVPR 2021]* and *MetaSDF[NeurIPS 2020].* Awarded an oral acceptance to CVPR for *pi-GAN*, a distinct honor.

Yale Biomechanics and Control Lab, Research Assistant (2018)

- Investigated the mechanism by which a flexible pelvis lends passive mechanical stability to jumping animals.

Neuro-Electronics Research Flanders, Visiting scholar (Summer 2017)

- Designed and conducted experiments to investigate memory in mice.

Select Publications

* denotes equal contribution

- Vincent Sitzmann*, **Eric R. Chan***, Richard Tucker, Noah Snavely, Gordon Wetzstein. "MetaSDF: Meta-learning Signed Distance Functions." Advances in **Neural Information Processing Systems 33 (2020)**.
- **Eric R. Chan***, Marco Monteiro*, Petr Kellnhofer, Jiajun Wu, Gordon Wetzstein. "pi-GAN: Periodic Implicit Generative Adversarial Networks for 3D-Aware Image Synthesis." **CVPR 2021 (Oral)**
- J. Martel, D. Lindell, C. Lin, **E. Chan**, M. Monteiro, G. Wetzstein "ACORN: Adaptive Coordinate Networks for Neural Scene Representation", **ACM SIGGRAPH 2021**
- Venkadesan, Madhusudhan, Alexander Lee, and **Eric Chan**. "Passive mechanical stabilization of body rotations in jumping." 9th International Symposium on Adaptive Motion of Animals and Machines **(AMAM 2019)**. No. CONF. 2019.

Select Work Experience

Nvidia, Research Intern (Summer 2021)

- Lead research investigating applying generative models to few-shot inverse rendering. Ongoing work, with the goal to submit to an upcoming conference.

Google, Software Engineering Intern (Summer 2020)

- Designed and implemented a pipeline for predicting the execution cost for each component of Optical Character Recognition models given images. The resulting pipeline, which collects data in real-time from production traffic and trains a CNN, demonstrated significant improvements over prior heuristic-based system, particularly for non-Latin languages.

NASA Jet Propulsion Laboratory (JPL), Intern (Summer 2018)

- Implemented software related to the simulation, visualization, and control of the Curiosity and Perseverance rovers. Created API's for calculations such as inverse kinematics for Curiosity's robotic arm and wrote algorithms to help simulate and evaluate the safety of potential paths, used in automated rover pathfinding.

Select Leadership and Activities

Yale, Formula Hybrid Racing Team, Project Manager and EECS Team Lead (2016-2018)

- Ensured Bulldogs Racing's five engineering sub-teams, three management sub-teams, and 30+ members stayed on track and operated as a cohesive unit. As Electrical and Computer Systems Team Lead, in charge of design and fabrication of power and logic systems

Championship Robotics Team Founder, Captain, Mentor (2011 - 2019)

- Back-to-back Vex World Championships division champions, out of more than 10,000 teams from 22 countries worldwide, and 3x California State Champions, out of over 500 California-based teams.

Teaching Experience

- Stanford CS 103: Mathematical Foundations of Computing, Teaching Assistant (2019)
- Yale CS 201: Introduction to Computer Science, Undergraduate Learning Assistant (2017)

Skills

- Independent, capable of driving a research project from start to finish with little guidance; strong grasp of machine learning theory and applications, able to design and implement novel algorithms in fields such as vision, generative models, meta-learning and reinforcement learning; varied background and flexible skillset makes for an adaptable, quick learner. Published in NeurIPS, CVPR, and SIGGRAPH, among the top conferences in deep-learning, computer vision, and graphics, respectively.