

Allison Chen

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EDUCATION

Princeton University

SEP 2022-PRESENT

Ph.D. Computer Science

GPA: N/A

University of California, Los Angeles

SEP 2018-JUN 2022

Summa Cum Laude

GPA: 3.993/4.0

B.S. in Computer Science | Minor in Cognitive Science

PUBLICATIONS

Tian Yu Liu*, Parth Agrawal*, **Allison Chen***, Byung-Woo Hong, Alex Wong. “*Monitored Distillation for Positive Congruent Depth Completion*”. **ECCV 2022**. * = equal contribution

Alex Wong*, **Allison Chen***, Yangchao Wu, Safa Cicek, Alexandre Tiard, Byung-Woo Hong, and Stefano Soatto. “*Small Lesion Segmentation in MRI with Subpixel Embedding*”. **MICCAI Brain Lesion Workshop 2021**. Oral Presentation. * = equal contribution [[code](#)] [[paper](#)]

RESEARCH EXPERIENCE

Monitored Distillation

OCT 2021-JUN 2022

Dr. Stefano Soatto | **UCLA Vision Lab**

- Built an ensemble of teachers by computing a criterion based on reprojection error to train a lightweight student model in unsupervised sparse to dense depth completion.
- Addressed weaknesses of each teacher model and ensemble holistically by balancing distilled loss with typical unsupervised color and structural reprojection losses using similar criteria.

Small Lesion Segmentation

MAR 2020-OCT 2021

Dr. Stefano Soatto | **UCLA Vision Lab**

- Proposed a technique using subpixel methods to retain details of a brain MRI scan that are often lost through rapid spatial downsampling and max-pooling in medical image segmentation works.
- Devised method that outperforms the state of the art while reducing memory requirements by 72.3% and 57.5% for training and testing respectively.

Monotonicity Verification Extension

APR 2021-JUN 2021

Dr. Guy Van den Broeck | **Statistical and Relational Artificial Intelligence Lab (StarAI)**

- Extended monotonicity verification system for small fully connected networks to actor-critic based models.
- Developed **Python** scripts to convert between checkpoint save formats between **TFLearn** and **Keras** APIs for **TensorFlow** to extend generalizability.

WORK EXPERIENCE

Software Engineering Intern

JUN 2021-SEP 2021

Microsoft | *Azure Communication Services*

- Implemented device & network tests in **Typescript** to predict audio and video calling capabilities.

Software Engineering Intern

JUN 2020-SEP 2020

Oracle Corporation | *Performance, Scalability, and Reliability Team*

- Developed **Node.js** framework in **Typescript** to aid internal teams with developing unified functional and performance tests on user interfaces.

Machine Learning Application Intern

JUN 2019-AUG 2019

The Field Museum – Chicago, IL | *Botany Research Team w/ Dr. Matt von Konrat*

- Developed deep learning models in **TensorFlow** and **Keras** to classify botanical specimen images to organize museum's contributions to public online botanical databases

HONORS & AWARDS

Scholarships

- 2022-23 Intel Graduate Diversity Scholarship
- 2021-22 APLUS Scholarship
- 2021-22 Tau Beta Pi Forge No. 111 Scholarship
- 2021-22 Society of Women Engineers Los Angeles Scholarship
- 2020-21 Cornelius Leondes UCLA Undergraduate Scholarship
- 2020-21 National Society of Women Engineers Intel Undergraduate Scholarship
- 2020-21 Society of Women Engineers Los Angeles Scholarship
- 2020-21 Society of Women Engineers at UCLA Scholarship
- 2020-21 UCLA Faculty Women's Club Scholarship
- 2018-19 UCLA Women in Engineering Scholarship

Society Involvement

- 2018- Society of Women Engineers
- 2021-22 Google Computer Science Research Mentorship Program
- 2020-22 Upsilon Pi Epsilon Computer Science Honors Society
- 2019-22 Tau Beta Pi Engineering Honors Society

Achievements & Recognition

- 2022 Engineering Achievement Award in Student Welfare
- 2022 [Engineering For Humanity Research Symposium Director](#)
- 2018-22 UCLA Dean's Honors List
- 2018 1st Place at UCLA Idea Hacks Hardware Hackathon

LEADERSHIP & OUTREACH

Society of Women Engineers @ UCLA, UCLA

- Internal Vice President and Executive Board Member APR 2021-JUN 2022
- Evening with Industry External Director and Executive Board Member APR 2020-APR 2021
- SWE Families Head OCT 2020-JUN 2021
- Student Relations Director and Executive Board Member APR 2019-APR 2020

Grad2Mentor Program, UCLA

- Program Coordinator APR 2021-SEP 2021
- Mentor APR 2021-JUN 2022

SKILLS

- Languages: Python, C++/C, Typescript/Javascript, Java, HTML/CSS
- Frameworks/Packages: Pytorch, Tensorflow, Keras, Numpy, React
- Technologies: Unix, Git, Latex
- Hobbies: Spikeball and rock climbing!