Allison Chen

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EDUCATION

Princeton University   SEP 2022-Present
    Ph.D. Computer Science   GPA: 4.0/4.0
    Advisor: Dr. Olga Russakovsky

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 [code] [paper]

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 PROJECTS

Global Explanations & Human Uncertainty   APR 2023-Present
Dr. Olga Russakovsky | **Princeton VisualAI Lab**
- Explore the faithfulness gap of global model explanation methods and its relationship to human uncertainty metrics.

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.

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   UCLA 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

Lab Learning Program, *Princeton University*
- Mentor and host for two high school computer vision research interns   JUL 2023-AUG 2023

Prison Teaching Initiative, *Princeton University*
- Math and science tutor for incarcerated students   JAN 2023-Present

Graduate Society of Women Engineers, *Princeton University*
- Chapter co-founder at Princeton   OCT 2022-Present

Mentorship
- Society of Women Engineers @ Princeton Mentor   NOV 2022-Present
- UCLA Alumni Mentor (3 mentees)   SEP 2022-Present
- Princeton Computer Science Pre-Application Mentor   NOV 2022

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

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 database

SKILLS

- Languages: Python, C++/C, Typescript/Javascript, Java, HTML/CSS
- Frameworks/Packages: Pytorch, Tensorflow, Keras, Numpy, React
- Technologies: Unix, Git, Latex
- Hobbies: Spikeball, dance, cooking, and reading! Currently reading: *St. Thomas Aquinas* by G.K. Chesterton