

EDUCATION

- **University of California, Los Angeles (UCLA)** Los Angeles, CA
Master of Science in Computer Science; GPA: 3.73/4.00 Sep. 2021 – June 2023
- **University of Illinois at Urbana-Champaign** Urbana, IL
Bachelor of Science in Computer Engineering; GPA: 3.74/4.00 Aug. 2017 – May 2021

EXPERIENCE

- **Dolby Laboratories, Inc.** Los Angeles, CA
Image Engineering Intern June 2022 - Present
 - Developed an system for restoring HDR image metadata using Particle Swarm Optimization (PSO).
 - Researched deep learning papers in the fields of HDR and photo enhancement; implemented, trained and evaluated deep learning models related to photo enhancement.
 - Unit-tested modules for deep learning models and the gradient-free optimizer using nosetests.
- **YITU Technology** Hangzhou, China
Research Intern - Computer Vision Feb. 2021 - May. 2021
 - Trained and evaluated Single Shot Multibox Detector (SSD). Experimented with the model design and hyper-parameters, achieved recall rate $\approx 80\%$ under 1% False Alarm Rate.
 - Wrote scripts in Python and Bash that can extract potential training images from entire unlabeled image database, increased recall rate by $\approx 5\%$. Automated task submission pipeline, saved at least 70% of time compared to previous process.
 - Wrote and assessed annotation guidelines for object detection tasks.
- **Sayan Mitra's Lab @ UIUC** Urbana, IL
Undergraduate Research Assistant May 2020 - Aug. 2020
 - Designed and implemented a [python package](#) that utilized backend of C2E2 for reachability analysis.
 - Fixed bugs and added new functionalities to C2E2 software such as deterministic transition and a drop-down UI for method selection.
 - Introduced C2E2 and presented newly-designed functionalities to 10+ group members; a part of the presentation was recorded as a [tutorial](#).

PROJECTS

- **Focus Stacking - Image Processing Tool:**
 - Developed a tool to blend images with different depths of fields into an "all-in-focus" image.
 - Utilized Laplacian Pyramid Decomposition for image fusion and reconstruction, achieved better visual/quantitative result than simple blending methods.
 - Application include photography and microscopic imaging to produce a better quality image.
- **LazyTrip - Smart Travel Planner:**
 - Developed backend functionalities in RESTful API using Django REST Framework (DRF).
 - Integrated Google OAuth into the backend's JWT Token based authentication system.
 - Developed KNN-based greedy scheduling algorithms for travel route planning.
 - Fully documented and unit-tested APIs, deployed app on Heroku.

SKILLS

- **Programming Languages:** C/C++, Python, Bash
- **Libraries:** PyTorch, NumPy, Matplotlib, Django, CUDA, OpenMP, MPI, nosetests
- **Others:** L^AT_EX, Git, AWS, Linux, Socket Programming, Scrum, Adobe Lightroom, [Photography](#)