

Calvin-Khang Ta

COMPUTER VISION RESEARCHER | SOFTWARE ENGINEER

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Education

University of California, Riverside

B.S. COMPUTER SCIENCE

Riverside, CA

June 2019

PHD COMPUTER SCIENCE

June 2024

Selected Publications

Noise2Sparse: Self-Supervised Poisson Denoising From a Single Image

MICCAI 2022

CALVIN-KHANG TA, ABHISHEK AICH, AKASH GUPTA, AMIT K. ROY-CHOWDHURY

- In this work, we explore a sparsity and dictionary learning-based approach for self-supervised single image denoising, where the noise is approximated as a Poisson process

GAMA: Generative Adversarial Multi-Object Scene Attacks

NeurIPS 2022

ABHISHEK AICH, CALVIN-KHANG TA, AKASH A GUPTA, CHENGYU SONG, SRIKANTH KRISHNAMURTHY, M. SALMAN ASIF, AMIT

ROY-CHOWDHURY

- In this work, we explore leveraging joint language and vision models such as CLIP in order to generate adversarial attacks on multi-object classifiers

Experience

University of California, Riverside | Video Computing Group

Riverside, CA

GRADUATE RESEARCH ASSISTANT

Jan. 2020 - PRESENT

- Developing automated image analysis pipelines for biological modeling research of Shoot Apical Meristem of Arabidopsis and increasing throughput of existing code base by 400%.
- Working on developing self-supervised image enhancement algorithms through exploring sparse representations and implicit network priors.
- Assisted in the development of adversarial attacks on deep learning based classifiers across domains.

Vimaan Robotics

Santa Clara, CA

COMPUTER VISION RESEARCH INTERN

June 2022 - Sept. 2022

- Research and implemented state of the art image deblurring algorithms for use on internal datasets and products.

Amazon.com

San Francisco, CA

GRADUATE SDE INTERN

June. 2020 - Sept. 2020

- Fullstack development on the Goodreads team

University of California, Riverside

Riverside, CA

TEACHING ASSISTANT

Jan. 2020 - PRESENT

- In charge of the lab sections for CS 12- Intro to Programming for Computer Scientist and Engineers II
- Taught undergraduates basic algorithms and C++ features.

Amazon.com

Tempe, AZ

GRADUATE SDE INTERN

June. 2019 - Sept. 2019

- Working with Seller Partner Promotions Team

Amazon Web Services

Seattle, WA

SDE INTERN

June. 2018 - Sept. 2018

- Worked on the AWS Comprehend Team. AWS Comprehend is a natural language processing API that offers NLP services such as sentiment analysis and key-pharse extraction.
- Project involved technologies such as MXNet and varying AWS Services

Skills

Languages Python, C/C++, Java, MATLAB, Shell Script

Libraries|Tools Git, cmake, nmap, vagrant, ansible, Unity, OpenCV, numpy, pandas, Pytorch, AWS, Docker