Kevin Hyekang Joo

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EDUCATION

University of Maryland — College Park, MD

- Master of Science in Computer Science, 3.80 / 4.00 — Aug 2021 – Present / Expected May 2023
  - Advisor: Prof. David W. Jacobs
  - Areas: Computer Vision and Machine Learning

- Bachelor of Science in Computer Science, 3.72 / 4.00 — Aug 2017 – May 2021
  - Specialization: Machine Learning Track
  - Minor: Technology Entrepreneurship

PROJECT EXPERIENCE

Weakly-Supervised Video Anomaly Detection* — Apr 2022 – Present
- Keywords: Video Understanding, Anomaly Detection, Vision-Language, Attention Mechanism

Cropland and Vegetation Forecasting with Remote Sensing* — Jun 2021 – Present
- Keywords: Spatiotemporal, Multispectral Bands, Gaussian Processing, Generative Models, Image Generation

VegaPlus — Jan 2021 – Present
- Keywords: Scalable Optimization, Machine Learning

PUBLICATIONS

- Khoa Vo, **Hyekang Joo**, Kashu Yamazaki, Sang Truong, Kris Kitani, Minh-Triet Tran, Ngan Le, "*AEI: Actors-Environment Interaction with Adaptive Attention for Temporal Action Proposals Generation,*" In Proceedings of the 32nd British Machine Vision Conference (**BMVC**), 2021
  - **Oral Presentation** (**40 (3.33%) oral** / 437 (36.23%) accept / 1206 submissions)

- Junran Yang, **Hyekang Kevin Joo**, Sai S. Yerramreddy, Siyao Li, Dominik Moritz, and Leilani Battle, "*Demonstration of VegaPlus: Optimizing Declarative Visualization Languages,*" In Proceedings of the 46th Annual ACM Special Interest Group on Management of Data (**SIGMOD**) Conference - Demo Track, 2022, https://doi.org/10.1145/3514221.3520168
  - Poster Presentation (33.8% accept)
  - REU project (funded by CRA) that I worked on with Prof. Battle and Prof. Moritz in Summer 2021

- **Hyekang Joo**, Calvin Bao, Ishan Sen, Furong Huang, Leilani Battle, "*Guided Hyperparameter Tuning Through Visualization and Inference,*" arXiv, 2021

AWARDS & SCHOLARSHIPS

- Graduate Teaching Assistantship, *Univ. of Maryland* — Jan 2022 – Dec 2022
- Graduate Research Assistantship, *Univ. of Maryland* — Aug 2021 – Dec 2021
- Postgraduate Computer Science Scholarship ($10,000) for Google Scholars, *Google* — Jul 2021

RESEARCH INTERESTS

- Video & Motion Understanding ▪ Anomaly Detection ▪ Cognitive Science
- Image Synthesis & Manipulation ▪ Generative Models ▪ Remote Sensing

SKILLS

- Python ▪ JavaScript ▪ Java ▪ PyTorch ▪ Korean & English (U.S. Citizen)

WORK EXPERIENCE

Amazon — Device Services & Operation | May 2020 – Aug 2020
Software Development Engineer (Intern) — AWS Inspector | May 2019 – Aug 2019

TEACHING ASSISTANT EXPERIENCE

Google — Summer 2022
- Applied Machine Learning Intensive Bootcamp Summer Program

University of Maryland — Sep 2019 – Present
- Fall 2022 & Spring 2020 & Fall 2019: Object-Oriented Programming I (CMSC131)
- Spring 2022: Computer Vision (CMSC426) & Natural Language Processing (MSML641)
- Spring 2021: Marketing High-Tech Products and Innovations (ENES462)

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*My Current Primary/First-Author Project