

Yufan (Yolanda) Wang

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Looking for machine learning internship opportunities for May 28th - Aug 30th, 2024

EDUCATION

Cornell University, College of Engineering

Aug 2021 - May 2024

Bachelors of Science in Computer Science

GPA: 4.0/4.3

- Coursework: Machine Learning, Computer Vision, Reinforcement Learning, Algorithms, C++ Programming, Computer System, Linear Algebra, Real Analysis, Probability
- Teaching Assistant: Intro to Machine Learning, Intro to Algorithms, Discrete Structures
- Awards and Grants: Student Assembly Summer Experience Grant, Bowers CIS Undergraduate Research Experience

EXPERIENCE

Cornell University Machine Learning Lab

May 2022 - Now

Student Researcher

Ithaca, NY

- Performed computer vision research specialized in unsupervised perception with depth estimation for autonomous driving.
- Experimented with deep learning architectures with PyTorch and TensorFlow(Keras), and managed large-scale training with SLURM-based distributed system.
- Funded by Cornell research grants, published 2 papers as co-authors at top-tier conferences.

Cornell University Space System Design Studio

Feb 2022 - Aug 2022

Student Software Developer

Ithaca, NY

- Spearheaded CisLunarSim in the CisLunar Explorer project, the physical simulation environment for the software of a moon mission cube satellite.
- Designed and implemented EventQueue and EventListener to manage the simulation of the satellite's accelerator, attitude control, and communication with the ground.
- Implemented a JSON IO system with rigid error-detection and managed a dynamic database with Heroku and real-time databoards with Grafana.

ECornell Curriculum Development

Sept 2023 - Now

Course Creator

Ithaca, NY

- Developing an [online course](#) on generative models with Professor Weinberger, releasing in May 2024.
- Designing projects, crafting lecture notes, and collaborating on syllabus development.
- Topics include Transformer, BERT, CLIP, LLMs, ViT, GANs, and diffusion models.

PUBLICATIONS

Yufan Wang, Yihong Sun, Justin Lovelace, Kilian Weinberger, Bharath Hariharan. "*Unsupervised 2D Object Discovery with Past Traversal.*" In preparation for NeurIPS 2024.

Zhenzhen Liu*, Jinpeng Zhou*, **Yufan Wang**, Killian Weinberger. "*Unsupervised Out-of-Distribution Detection with Diffusion Inpainting.*" In ICML 2023.

Ruidong Zhang, Ke Li, **Yufan Wang**, et al. "*EchoSpeech: Continuous Silent Speech Recognition on Minimally-obtrusive Eyewear Powered by Acoustic Sensing.*" In Proceedings of CHI 2023

PROJECTS

Make It Move: Gif Meme Generator {Pytorch & HuggingFace & Selenium}

May 2023

- A video generator that transforms still image memes into gif memes, pipelined with SOTA image captioning model, video2text diffusion model, and large language model, and finetuned with custom dataset collected by data scraping.

SQL Database with OCaml {Ocaml & SQL}

Feb 2022

- A SQL database management system (DBMS), including a SQL parser, an interpreter, an executor, and CSV loading/storing functionality.

TECHNICAL SKILLS

Programming languages: Python (10000+), Java (10000+), C++(5000+), SQL(1000+)

ML/AI: TensorFlow, Pytorch, OpenCV, HuggingFace, SkLearn, Numpy, Pandas, Matplotlib

Tools: Git, Bash, Unix, Linux, SLURM, Tmux, Selenium, Request, JavaScript, MongoDB, MySQL, LaTeX