

Paul J. MELLO

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📍 Half Moon Bay, California

SUMMARY: Artificial intelligence graduate student studying generative AI with a passion for big data and neural solutions.

EDUCATION

Artificial Intelligence — *Master of Science* AUG 2021 - MAY 2024
Charles W. Davidson College of Engineering GPA: 3.66
San José State University, California
Related Coursework: Deep Learning, Autonomous Systems, Data Science

Computer Science — *Bachelor of Science* | Mathematics, Philosophy - *Minor* AUG 2016 – MAY 2021
College of Engineering & Computer Science GPA: 3.28
Sacramento State University, California
Related Coursework: Machine Learning, Software Engineering
Honors: Dean's List for 3 semesters

WORK EXPERIENCE

Information Processing in Diffusion Processes — *Master's Thesis* MAY 2022 - MAY 2024

- Handcrafted a multi-dimension diffusion model to track the transformation information of denoising neural networks.
- Adapted novel information processing systems to the task of neural estimation.

Image Annotation Generator — *Course Project* AUG 2022 - DEC 2022

- Collaborated on a group project using artificial intelligence to generate accurate captions for an associated image using a parallelized training process on the flicker8K dataset.

Flower Classification — *Kaggle Competition* JAN 2022 - MAY 2022

- Co-developed a TPU based model achieving a 12/162 ranking.
- Employed a weighted ensemble strategy, harnessing well established models and fine-tuning through various techniques.

Amputee Rehabilitation Software — *Capstone Project* AUG 2020 - MAY 2021

- Closely collaborated with medical experts to develop algorithmic solutions to meet clinical requirements and address challenges faced by amputees in order to provide more personalized care.
- Developed scalable software to extract and store pressure sensor data at 250 times/second from medical devices.
- Designed responsive and intuitive visualizations, enabling medical professionals to improve patient treatment.

Competitive Director — *Sacramento State Club* AUG 2018 - DEC 2019

- Held Big Sky's committee chair to facilitate intercollegiate competition between over a dozen universities.
- Directed over a dozen concurrently competing teams across various sports, tournaments, and divisions.
- Developed a scalable club framework to manage semesterly enrollment consistently tripling, reaching 600 members.

TECHNICAL PROJECTS

Stock Market Chatbot — *Personal Project* OCT 2021 - DEC 2021

- Created a machine learning chatbot to retrieve and relay real time NYSE data through Alpha Vantage API calls.

SKILLS

Programming Languages

- Python: PyTorch, TensorFlow, Keras, tinygrad
- R, C, SQL, C++, Java, Assembly, HTML, CSS, jQuery, PHP, JavaScript.

Frequently Used Tools

- HPC, S3, SSH, AWS, Git, GitHub, GitLab