James Dao

12014 Hodges Grove Lane, Tomball, TX 77377
346-280-9344 james.k.dao@gmail.com linkedin.com/in/james-dao-920b45246

Objective

Master's candidate in Applied Machine Learning, seeking an internship/job to apply my passion for innovative programming and machine learning in AI-driven solutions and real-world applications.

Education

University of Texas at Dallas **Expected Grad. Dec 2025**
Master of Science in Computer Engineering - Applied Machine Learning *GPA: 3.5*
Bachelor of Science in Computer Engineering

Technical Skills

Languages: Python, Java, C++, C#, HTML/CSS, Verilog, Assembly, MatLab, LaTeX
Developer Tools: PyTorch, Hugging Face, NumPy, Scikit-Learn, VS Code, Figma, Energia
Technologies/Frameworks: Linux, GitHub, Flutter, OpenGL, React

Experiences

Institute of Electrical and Electronics Engineers **Aug 2023 – Present**
Computational Intelligence Society Director *Dallas, TX*

- Established a new society branch, increasing student engagement and interest by 25%.
- Led the planning and execution of 5+ industry-level events, attended by 100+ participants, focused on machine learning technologies.
- Developed workshops that increased participants' ML skills, with a 25% improvement in post-workshop assessments.

Cognizant Generative AI Externship **June 2024 – August 2024**
Student Extern *Dallas, TX*

- Gained fundamental knowledge on deep learning, from perceptions to transfer learning, and received hands-on experience with PyTorch and Hugging Face libraries for developing generative models.
- Applied parameter-efficient fine-tuning techniques, resulting in a 30% reduction in computational resource usage for model training.

Multimodal Interaction Lab **Aug 2023 – Dec 2023**
Research Intern *Dallas, TX*

- Designed and prototyped virtual reality interfaces, enhancing user experience with multisensory feedback. The interfaces increased user engagement by 15%.
- Collaborated with a cross-functional team to develop interaction techniques in Unity using C#, integrating tactile and haptic feedback mechanisms.

Projects

VAE-Based Molecular Analysis | *Python, PyTorch, NumPy*

- Developed a Variational Autoencoder to predict molecular conformations with 85% accuracy, using Hamiltonian matrices derived from DFT data.
- Utilized ELBO loss function to ensure informative and accurate molecular representations, improving the prediction of stable molecular structures.
- Achieved a 20% reduction in loss through effective hyperparameter tuning and gradient clipping, enhancing model convergence speed.

Parameter-Efficient Fine Tuning Model | *Python, Scikit-Learn, PyTorch*

- Fine-tuned the RoBERTa model using LoRA technique from Hugging Face's PEFT library, improving training efficiency by 60%.
- Achieved an 89% accuracy on emotion detection tasks while reducing computational overhead by 25% compared to fully fine-tuned models.

Pre-Trained Image Classifier | *Python, PyTorch*

- Implemented and optimized image classification models (ResNet, AlexNet, VGG) for classifying dog breeds with a 93% accuracy rate.
- Balanced model accuracy and runtime, reducing inference time by 15%, making it suitable for large-scale dog show registrations.