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Website
LinkedIn

Education

University of California San Diego | B.S. Mathematics-Computer Science | B.S. Specialization in Machine Learning and Neural Computation | GPA 3.98 | Expected Jun 2028

Skill

Languages: Python, C/C++, Java, Swift

ML/AI: PyTorch, LoRA, TTS, NeRF/3DGS

CV/Graphics: OpenCV, COLMAP, ComfyUI, SfM/MVS

Systems/Tools: Linux, Git, Docker, GDB, CUDA

Internship Experience

AI Research Intern | China Literature Ltd *College 1st Year*

- Led a TTS (Text-to-Speech) multi-emotion generation framework, analyzing Voice Clone (VC) integration vs. LoRA fine-tuning solutions, and built four emotional LoRA models evaluated for timbre consistency and emotional intensity.
- Optimized LoRA inference pipeline, slashing model loading overhead from 5.38s to 0.09s (a 98% reduction) to match baseline.
- Designed a Flux-model–based method for generating real-virtual combination images, built a dataset of 100+ "blind box" scenarios, and trained a stylized LoRA to produce "giant-object landmark interaction" marketing materials.
- Developed a complete workflow: data collection and labeling with Whisk, generation architecture setup with ComfyUI, and merging characters with city landmarks.
- Systematically evaluated model hyper-parameters with 100+ comparative experiments to determine the best balance between emotional intensity and voice quality.

Summer Intern | Tencent Co. Marketing & Public Relations *Grade 12*

- Produced an one-hour interactive video class for coding & AI introduction for 2-3 graders, spread to over 8 cities across China.
- Involved scripting, market strategy writing, and running the social media short video account, while providing technical insights from background with machine learning.

Startup Experience

Co-Founder & Head of Product | AI Relationship "Consultor" *College 2nd Year*

- Designed and prototyped an AI-powered conversational strategist to help users build and maintain romantic relationships, from initial approach to long-term connection.
- Identified a key gap in the Mandarin-speaking market, where dominant AI products

focus on simple keyboard autocompletion, lacking strategic, context-aware relationship guidance.
- Leading development of a RAG (Retrieval-Augmented Generation) system to ground the model in expert-curated knowledge, combined with a DPO (Direct Preference Optimization) -trained LoRA to ensure a strategic and natural "dating coach" persona.
- Architecting a novel training pipeline using LLM-as-a-judge (GPTscore) to automatically create a (chosen, rejected) preference dataset with minimal supervision needed, streamlining the DPO fine-tuning process.

Founding Engineer & Product Lead | Tennis Coaching Platform *College 2nd Year*
- Led full-stack development for a new tennis platform, personally engineering the majority of the frontend application to connect coaches, players, and venues.
- Initiated and managed the full-cycle recruitment for the UI/UX team, scaling it to 6 members and securing top-tier design talent.
- Directed the design team's workflow from the critical technical perspective, from low-fidelity wireframes to high-fidelity UIs, with structured critique periods.
- Partnered closely with the CEO on product strategy, hiring decisions, and go-to-market plans for launch in major cities in China.

Research Experience

Research Assistant | Autonomous Driving Laboratory, UC San Diego *Advised by Prof. Henrik I. Christensen | College 2nd Year*
- Contributed to the perception and prediction stacks for a campus self-driving golf cart project.
- Developed and implemented an unsupervised data annotation pipeline using computer vision methods to process large-scale campus data.
- Investigated chain-of-thought (CoT) reasoning for Vision-Language-Action (VLA) models to improve decision-making.
- Benchmarked baseline prediction and perception models, analyzing the effectiveness of various evaluation metrics.
- Collaborated in a large lab (15+ members) to integrate and test new modules.

Summer Research Assistant | 3D Reconstruction Research Experience in Shanghai Jiao Tong University *College 1st Year*
- Implemented and benchmarked baseline NeRF and 3D Gaussian Splatting models.
- Contributed on the research on Generalizable 3D Gaussian Splatting with inspiration from MVSGaussian and PixelSplat.
- Designed and implemented efficient and robust fusing strategy of Multi-View-Stereo (MVS) with Structure-from-Motion (SfM) for a stronger cloud point initialization.
- Benchmarked the fusing initialization algorithm and achieved more than 30% faster training speed with slightly better quality.
- Investigated extensively on the editability of the 3DGS with bounding mesh surfaces inspired by SuGaR.

Automated CNN Scientific Instrument Data Reading *Grade 12*
- Leveraged OCR techniques to preprocess images than output with a CNN classifier

utilizing transfer learning on a dataset curated for scientific instruments.

- Designed and built a pipeline of dataset creation and digit reading for scientific instrument measurements integrating learning-based classifier and video capturing hardware.