Jingcheng Li

Machine Learning Engineer | Authorized to work with sponsorship | Open to US relocation
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EDUCATION

University of California, San Diego Jun 2026
- *Master in Computer Science* | GPA: **3.64/4**

University of California, Irvine Dec 2023
- *Bachelor in Computer Science* | GPA: **3.71/4**

Skills: Machine Learning, Deep Learning, Computer Vision, NLP, Multi-Modality, Artificial Intelligence, Computer Algorithm, Computer Optimization, Computer Graphics, Computer Network, Python, C++, C, Java

RESEARCH EXPERIENCES

3D Concept Learning | Project Leader March 2025 - Present
Graduate Research Assistant; Supervisor: Prof. Zhiting Hu *San Diego, CA*

- Use prompt to generate 3d object mesh and texture;
- Based on the object generated, predict which part of it can interact with human and how it can move, apply the animation so that it can directly work in UE or blender.

Long Form Video Reasoning |AAAI 2026 Student Abstract | First Author Jun 2025 - Sep 2025
Graduate Research Assistant; Supervisor: Prof. Sitao Huang *Irvine, CA*

- Tried to fix the gap between offline and online video Understanding;
- Create better information compression and memory management technique for dealing with long video's efficiency.

SNAP: Generalizable Zero-Shot Prediction of Neural Architecture Performance via Semantic Embedding and Graph Learning | Submit to ICLR 2026 | Second Author Feb 2025 - May 2025
Graduate Research Assistant; Supervisor: Prof. Sitao Huang *San Diego, CA*

- Predict architecture performance using Operator Description Embedding and require no retraining and generalize well across arbitrary search spaces;
- Fine-tune sentence transformer on a neural architecture search specific dataset;
- Improves search efficiency by up to 300x and has superior rank correlation and generalizability compared to existing proxies.

Concept Learning Oct 2024 - Jan 2025
Graduate Research Assistant; Supervisor: Prof. Zhiting Hu *San Diego, CA*

- Compare Vision language model Molmo and GPT-4 in generating the concept and filter the incorrect and redundant ones;
- Use depth estimation model and pixel contact to further filter the concept.

Life Long LLM Personal Assistance Jun 2024 - Sep 2024
Undergraduate Research Assistant; Supervisor: Prof. Sitao Huang *Irvine, CA*

- Use Rotary Position Embeddings and position interpolation for longer context window;
- Store the prompt and answers based on different hierarchy in database for future use;
- Very long context window and ability to retrieve past data based on importance make the personal assistance life long .

RSEND: Retinex-based Squeeze and Excitation Network with Dark Region Detection for Efficient Low Light Image Enhancement | IJCNN2025 | First Author Jun 2023 - Mar 2024
Undergraduate Research Assistant; Supervisor: Prof. Sitao Huang *Irvine, CA*

- Applied Retinex theory using SE Net to enhance low-light images;

- Using pure CNN-based architecture that achieved the top 3 performance;
- Small size model that only consumes 0.41M parameters.

"Weird" Traditional Machine Learning Algorithm Research| Group Leader Jan 2023 - Jun 2023
Undergraduate Research Assistant; Supervisor: Prof. Wayne B Hayes *Irvine, CA*

- Developed a new model by utilizing both sigmoid functions and K-nearest neighbor to predict probability of object classification;
- Wrote a similar Scikit-learn library and used it to classify objects in the numerical datasets from UCI machine learning repository.

PUBLICATION

RSEND: Retinex-based Squeeze and Excitation Network with Dark Region Detection for Efficient Low Light Image Enhancement https://arxiv.org/abs/2406.09656 *Jingcheng Li, Ye Qiao, Haocheng Xu, Sitao Huang*
TG-NAS: Generalizable Zero-Cost Proxies with Operator Description Embedding and Graph Learning for Efficient Neural Architecture Search https://arxiv.org/abs/2404.00271 *Ye Qiao, Jingcheng Li, Haocheng Xu, Sitao Huang*
HARK: Hierarchical Agentic Retrieval with Keyframing for Video Understanding techrxiv.176157871.19625717/v1 *Jingcheng Li, Ye Qiao, Sitao Huang*

COURSE PROJECTS

Fluid Simulation & Particle System

- Used the combination of Particle In Cell method and Fluid Impact Particle method to serve as an extension of the Eulerian Simulation, a way of fluid simulation;
- Used a particle system and some keyframe animations to create a fountain of butterfly image effect based on the position of the mouse.

EXTRACURRICULAR

Computer Graphic Course Undergraduate TA & Reader

- Graded students' homework and exams;
- Taught students WebGL and answered questions regarding course concepts and programming.