Gia Khanh Nguyen

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Education

The University of Adelaide   **Jan 2023 – Dec 2025**
Bachelor of Computer Science (Advanced)   *7.0/7.0 GPA - 94.3% WAM*

Experience

Insightfactory.ai   **Jul 2024 – Present**
AI Research Scientist   *Adelaide, SA*
- Building autonomous AI systems to shape the future of consulting by replacing traditional data engineering and data science workflows.
- Designing multi-agent architectures that automate data ingestion, transformation, analysis, and decision-making end-to-end.

The Australian Institute of Machine Learning   **Jan 2025 – Present**
Research Fellow   *Adelaide, SA*
- Developing model architectures and training objectives to improve instruction following, saliency detection, and grounding of linguistic concepts in visual inputs.
- Constructing large-scale datasets and evaluation benchmarks to diagnose failure modes in fine-grained reasoning and visual importance modeling.

University of California, Berkeley   **Jul 2024 – Nov 2024**
Research Fellow   *Berkeley, CA*
- Developed and evaluated machine learning models for carbon flux event detection (published at Nature Ecology).

Massachusetts Institute of Technology   **Mar 2024 – Jul 2024**
Research Intern   *Adelaide, SA*
- Enhanced the robustness of Stable Diffusion 3 by identifying and mitigating critical security vulnerabilities.

CREST   **Nov 2023 – Feb 2024**
Summer Research Student   *Adelaide, SA*
- Developed a novel framework leveraging LLMs, NLP, and RAG to automatically generate cyberattack metagraphs from CTIs, reducing human analysis time by 95%.

Maptek   **Mar 2024 – Jun 2024**
Machine Learning Engineer Intern   *Glenside, SA*
- Analyzed geological model performance and optimized neural networks for Jacobians extraction.
- Migrated models from TensorFlow to JAX, enabling parallel processing and boosting performance by 76%.

Budi   **Oct 2023 – Jan 2024**
Lead Software Engineer   *Adelaide, SA*
- Led a team of four in developing a logistics services marketplace platform.
- Built responsive landing pages, resulting in a 30% customer base growth.

Leadership / Extracurricular

President   **Apr 2023 – Dec 2024**
The Society of Quantitative Analysis and Data   *The University of Adelaide*
- Increased membership to become the second-largest CS club on campus within just 7 months of founding date.
- Effectively led and managed a 25-member committee, overseeing the dynamic operations of the thriving and influential club, the sole data society in South Australia.

Executive Committee   **Oct 2023 – Dec 2024**
Competitive Programming Club   *The University of Adelaide*
- Conceptualized and executed a high-impact hackathon event, drawing over 100 competitors.

Publications

Yifeng Huang, **Nguyen, Gia Khanh**, and Minh Hoai.
CountEx: Fine-Grained Counting via Exemplars and Exclusion.
Under review at the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR).

Nguyen, Gia Khanh, Yifeng Huang, and Minh Hoai (2025).
Can Current AI Models Count What We Mean, Not What They See? A Benchmark and Systematic Evaluation.
In *Digital Image Computing: Techniques and Applications (DICTA)*.