

# Yuanzhong Chen

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## EDUCATION

<b>The Hong Kong University of Science and Technology (HKUST)</b> <i>B.Sc. in Computer Science and Mathematics (Double Major)</i>	Hong Kong, China <i>Sep. 2023 – June 2027 (Expected)</i>
<ul style="list-style-type: none"><li>Cumulative GPA: 3.923 / 4.3</li><li>Selected Coursework: Advanced Deep Learning Architecture (Postgrad level), Graph Neural Networks, Large Language Models Honors Probability.</li></ul>	
<b>École Polytechnique Fédérale de Lausanne (EPFL)</b> <i>Exchange Student</i>	Lausanne, Switzerland <i>Spring 2026 (Nominated)</i>
<b>Stanford University</b> <i>International Honors Program (Summer Session)</i>	California, USA <i>June 2025 – Aug. 2025</i>

*Note: All courses listed in this CV with available grades are in the A range (A- or above).*

## RESEARCH EXPERIENCE

<b>Pathology Report Generation via Multi-modal Learning</b> <i>Research Assistant, Supervised by Prof. Hao Chen</i>	Sep. 2025 – Present <i>HKUST Smart Lab</i>
<ul style="list-style-type: none"><li>Proposed a novel multi-modal framework to automatically generate pathology reports from Whole Slide Images (WSI).</li><li><b>Developing a two-stage training pipeline</b> for pathology report generation, leveraging a highly structured, high-quality dataset to enhance generation accuracy.</li><li><b>Addressed the scarcity</b> of high-quality paired WSI-report datasets by constructing a large-scale instruction-tuning dataset.</li><li>Designed a modality-alignment algorithm to enhance consistency between visual features and text descriptions, and proposed a disentanglement method to <b>decouple template artifacts from diagnostic information</b>.</li><li>Leveraged State-of-the-Art Vision-Language Models (VLMs) to assist pathologists, targeting measurable improvements in clinical workflow efficiency.</li></ul>	
<b>Cancer Diagnosis and Prognosis with Whole Slide Images</b> <i>Undergraduate Researcher, Supervised by Prof. Hao Chen (UROP)</i>	Sep. 2024 – Sep. 2025 <i>HKUST Smart Lab</i>
<ul style="list-style-type: none"><li>Conducted a comprehensive survey on deep learning methods for cancer diagnosis, synthesizing insights from over 10 seminal papers and recent benchmarks.</li><li>Implemented and evaluated deep learning baselines, including <b>MotCAT</b> and <b>MACT</b>, to analyze performance gaps in cancer subtype classification.</li><li>Identified key computational bottlenecks inherent in <b>gigapixel resolution</b> and <b>high-dimensional feature spaces</b> that limit traditional ML models.</li></ul>	
<b>iFLYTEK Co., Ltd.</b> <i>AI Data Processing Intern</i>	June 2024 – Aug. 2024 <i>Hefei, China</i>
<ul style="list-style-type: none"><li>Developed automated Python scripts for large-scale web data collection, improving data acquisition efficiency.</li><li>Preprocessed unstructured data to support the unsupervised training of Large Language Models (LLMs).</li><li>Analyzed data quality and summarized findings in technical reports presented to the senior research team.</li></ul>	

## PROJECTS

<b>Zero-Shot Spatial Reasoning with Large Language Models</b>   <i>Course Project</i>	Mar. 2025 – May 2025
<ul style="list-style-type: none"><li>Investigated the spatial reasoning capabilities of LLMs in zero-shot settings using custom prompt engineering.</li><li>Designed and executed experiments to evaluate model performance on complex geometric reasoning tasks.</li></ul>	

## AWARDS & HONORS

<b>Dean's List, HKUST</b> <b>University Scholarship (Top 2% Students), HKUST</b>	2023 – 2025 (Awarded 4 times) 2023 – 2024
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## SKILLS

<b>Languages:</b> Mandarin (Native), English (Professional Proficiency, <b>TOEFL: 102</b> )
<b>Programming:</b> Python (PyTorch, TensorFlow), C++, MATLAB, R, HTML/CSS
<b>Tools:</b> Linux, Git, Docker, LaTeX, Vim