

CHANG JUN QING

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SUMMARY

PhD-trained AI researcher and data scientist specializing in representation learning and computer vision. Experienced in designing, validating, and deploying ML-driven systems that optimize complex workflows in production environments.

WORK EXPERIENCE

Senior Product Development Engineer, Advanced Micro Devices Oct 2019 - Present

- Data Science, EDB Industrial Postgraduate Programme (EDB IPP)
- Led data-driven process optimization initiatives by analyzing large-scale structured and unstructured datasets, reducing manual inspection effort and improving operational throughput
- Led the end-to-end design, development, and deployment of computer vision models (CNN / ResNet) in PyTorch for automated defect detection, replacing manual heuristics
- Conducted architecture evaluation and hyperparameter tuning to optimize model performance prior to deployment
- Drove the implementation of integrated computer vision inference pipelines in a web-based application, standardizing analysis workflows across 4+ teams and reducing variance in defect reporting

Co-Op Engineer Intern, Advanced Micro Devices May 2018 - Aug 2018

- Analyzed semiconductor yield data to identify performance bottlenecks across product lines, contributing to improved defect localization strategies
- Designed and automated pipelines in Python and Java to streamline large-scale chip performance analysis, reducing manual analysis time
- Applied machine learning models to detect anomalous performance patterns

EDUCATION

Doctor of Philosophy Jan 2020 - Oct 2025

Nanyang Technological University

- Specialization in Artificial Intelligence, in the domain of Computer Vision
- Thesis on "Learning Compositionality for Image Classification and Segmentation"
- Economic Development Board Industrial Postgraduate Programme (EDB IPP)

Bachelor of Engineering May 2016 - Sep 2019

Singapore University of Technology and Design (SUTD)

- Information Systems Technology and Design Pillar, Specialization in Artificial Intelligence
- Graduated Magna Cum Laude

SKILLS

- **Languages:** English, Mandarin
- **Programming:** Python, Java, JavaScript, SQL, HTML, CSS
- **Frameworks:** PyTorch, TensorFlow, scikit-learn, React
- **Cloud & Platforms:** Microsoft Azure (AKS, Service Principal, Storage, Key Vault), Docker, Snowflake, Databricks, JIRA, Atlassian
- **Machine Learning:** Model Fine-Tuning, Few-shot Learning, Self-Supervised Learning, Representation Learning, Generative Models (Diffusion, GAN), Segmentation