

Matt Y. Cheung [[Website](#)] [[LinkedIn](#)] [[Google Scholar](#)][📍: Fremont CA/Houston TX][email: matthewyccheung@gmail.com][#: 510-936-4240]

Summary: PhD student working on advancing the safety of state-of-the-art machine learning and AI in high stakes settings. Currently looking for high-growth full time opportunities in the Bay Area starting early 2027.

Education

Ph.D. Electrical & Computer Engineering, Rice University, Houston, TX	Aug. 2023 - Dec. 2026
M.S. Electrical & Computer Engineering, Rice University, Houston, TX	Aug. 2020 - Dec. 2023
B.S. Electrical Engineering (cum laude), University of California, Davis, Davis CA	Sep. 2015 – Jun. 2020

Technical Skills

- Deep Learning: Diffusion (DDPM/IM, LDM, ControlNet, Classifier-free guidance), Transformers (VLM, LLM, ViT, Attention, MoE), Foundation Models
- Imaging: Reconstruction, Segmentation, Implicit Neural Representations
- Programming: PyTorch, SciPy, Pandas, scikit-learn, HuggingFace (transformers, diffusers)
- Math and Statistics: Conformal Prediction, Distribution Shifts (over time), Machine Learning, Linear Models, Inverse Problems, Reinforcement Learning (PPO, DPO, GRPO, RVLR/HF)

Academic Research Experience

Graduate Research Assistant, Rice University, Houston, TX	Dec 2020 - Dec. 2026
• Advisors: Ashok Veeraraghavan and Guha Balakrishnan • Trainee in the NIH NLM Training Program in Biomedical Informatics and Data Science • Topics of interest: uncertainty quantification, distribution shift, computer vision, medical imaging • First-author work at ICLR, EMNLP, MICCAI, IEEE ISBI, IEEE TBME • Reviewer at NeurIPS, ICLR, MICCAI, UNSURE, BHI, PAMI, ICHI, BioMed Optics Express, MobiCom	
Undergraduate Research Assistant, Yang Research Laboratory, Davis CA	Sep. 2018 – Jul. 2020

Professional Experience

AI/ML Intern – Computer Vision, Johnson & Johnson R&D, Remote	May 2026 – Aug 2026
Quality Reliability Engineering Intern, Texas Instruments, Dallas TX	Jun 2019 – Sep 2019
Software Development Intern (R&D, Engineering), Enovix Corporation, Fremont CA	Jun. 2017 – Jan. 2019

First-Author Publications:

- [Conformal Certification of Reasoning Trace Prefixes](#) (EMNLP 2026 - Main)
- [Efficient Conformal Volumetry for Template-Based Segmentation](#) (MICCAI 2026 - Spotlight)
- [COMPASS: Robust Feature Conformal Prediction for Medical Segmentation Metrics](#) (ICLR 2026)
- [Bias-Aware Conformal Prediction for Metric-Based Imaging Pipelines](#) (ISBI 2026 - Oral)
- [Metric-Guided Conformal Bounds for Probabilistic Image Reconstruction](#) (UNSURE@MICCAI 2025 - Long Oral)
- [When are Diffusion Priors Helpful in Sparse Reconstruction? A Study with Sparse-view CT](#) (ISBI 2025)
- [Wearable Blood Pressure Monitoring Devices: Understanding Heterogeneity in Design and Evaluation](#) (IEEE TBME 2024, invited talk at IEEE EMBC 2024)

First-Author Pre-prints:

- [ConRad: Efficient Conformal Prediction for Radiomics](#)

Collaborative Work Publications:

- GAIZ: Automated Detection of Geographic Atrophy Biomarkers via Volumetric OCT using Novel Morphological Objectives (MLMI@MICCAI 2026 - Oral, work done at J&J)
- INR-CBCT: An Implicit Neural Representation Framework Enabling High-Quality Sparse-View Cone-Beam CT for Image Guided Radiotherapy (AAPM 2026)
- [An ultrasonic transceiver for non-invasive intracranial pressure sensing](#) (IEEE TBCS 2024)
- [A 9mW Ultrasonic Through Transmission Transceiver for Non-Invasive Intracranial Pressure Sensing](#) (IEEE ISSCC 2023)
- [Wearing a mask: Compressed representations of variable-length sequences using recurrent neural tangent kernels](#) (ICASSP 2021)