

# Huanmi TAN

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## Education

- 2023 – 2025     **Carnegie Mellon University** – Pittsburgh, PA  
Master of Software Engineering, Scalable System  
*GPA: 3.95/4.00*
- 2019 – 2023     **Tongji University** – Shanghai, China  
Bachelor of Engineering in Software Engineering  
*GPA: 90/100*

## Honors and scholarships

- 2022     **National Third Prize** of East China Region in [Mobile Application Innovation Competition](#) (Computer Education Research Association of Chinese Universities)
- 2022     **National Second Prize** of [Citi Cup \(Fintech Innovation Application Competition\)](#) (Citigroup Services and Technology, China)
- 2022     Second-class University Scholarship (Tongji University)
- 2021     First Prize of East China Region in [Mobile Application Innovation Competition](#) (Computer Education Research Association of Chinese Universities)
- 2021     Third-class University Scholarship (Tongji University)
- 2020     Second-class University Scholarship (Tongji University)

## Publications

- 2026     **VeriCoder: Enhancing LLM-Based RTL Code Generation via Automated Test-Driven Refinement**  
Anjiang Wei, **Huanmi Tan**, Tarun Suresh, Daniel Mendoza, Thiago S. F. X. Teixeira, Ke Wang, Caroline Trippel, Alex Aiken  
*Under review, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD).*

- 2026     **SuperCoder: Assembly Program Superoptimization with Large Language Models**  
Anjiang Wei, Tarun Suresh, **Huanmi Tan**, Yinglun Xu, Gagandeep Singh, Ke Wang, Alex Aiken  
*The 4th Deep Learning for Code Workshop (DL4C) at NeurIPS 2025.*
- 2025     **SATBench: Benchmarking LLMs' Logical Reasoning via Automated Puzzle Generation from SAT Formulas**  
Anjiang Wei, Yuheng Wu, Yingjia Wan, Tarun Suresh, **Huanmi Tan**, Zhanke Zhou, Sanmi Koyejo, Ke Wang, Alex Aiken  
*Conference on Empirical Methods in Natural Language Processing (EMNLP) 2025.*

## Industry experience

- Jul 2025 – Now     **Amazon Web Services (Software Developer)** – Bellevue, WA  
Develop features for AWS Educate, a global cloud learning platform supporting learners worldwide. Build services with AWS-native and enterprise systems including Salesforce to improve operational efficiency and platform reliability.
- March 2023 – Aug 2023     **ByteDance Inc. (PM Intern)** – Shanghai, China  
Developed a machine translation evaluation pipeline integrating BLEU and COMET for automated multi-metric assessment. Analyzed event-tracking data to guide feature iterations and contributed SFT data and prompt reviews for Douyin's caring bot "Xiao'an".
- Nov 2022 – Feb 2023     **Shanghai AI Laboratory (Research Intern)** – Shanghai, China  
Studied robustness of neural networks on memristor hardware under weight-drift noise using Bayesian optimization. Proposed adaptive dropout during optimization and validated across 10 architectures, outperforming four baselines across a wide range of  $\sigma$ .

## Research experience

- 2024    **Self-Boost: Boosting LLMs with Self-Generated & Self-Verified Data** (Pittsburgh, PA)  
*Advisor: Prof. Graham Neubig*  
Proposed *Self-Boost*, an iterative instruction fine-tuning framework for low-data regimes using self-generated and self-verified examples with parameter-efficient tuning. Improved LLaMA3-8B-Instruct results on TREC (+21.6%), GSM8K (+5.6%), and CaseHOLD (+1.3%).
- 2022    **Algorithm Biases in Educational Data Mining** (NCSU GEARS, Remote)  
*Advisor: Prof. Yang Song.*  
Evaluated algorithmic bias and fairness-accuracy trade-offs for student success prediction on open educational datasets. Identified a tuned model with improved fairness while maintaining strong predictive performance and validated on a second dataset.
- 2021    **Device Log Identification** (X Lab, Tongji University, Shanghai, China)  
*Advisor: Prof. Qingfeng Du.*  
Built an NLP-based device log identification system for fault detection, deploying BERT-based representations for scalable log embedding. Improved classification accuracy from 0.91 to 0.99 and integrated into an AIOps pipeline.

## Academic Service

- Oct 2025    **Reviewer**  
Served as a reviewer for the *5th Workshop on Mathematical Reasoning and AI (MATH-AI)* at *NeurIPS 2025*.

## Miscellaneous

I enjoy bouldering, classical music, and discovering new cuisines.  
My mother tongue is Chongqing dialect, and also Mandarin.  
A proud cat lady (introducing my girl, Juzai).