

EXPERIENCE	Senior Machine Learning Engineer, Generative AI Media Safety, <i>Meta Inc</i> May 2023 - Present
	<ul style="list-style-type: none">• By doing model fine-tuning, reduced:<ul style="list-style-type: none">• ~23% of model bias among different demographics• ~40% of harmful association (eg. inappropriate association between african and monkey) prevalence• By doing prompt engineering, reduced ~45% model bias among different demographics• By doing negative prompt injection, reduced ~13% harmful association prevalence• Conducted a regular red teaming session with 20+ engineers providing adversarial samples• Reduced violating (nudity, violent, ...etc.) images by 20% with training data filtering
	Senior Machine Learning Engineer, Marketplace Integrity, <i>Meta Inc.</i> Apr. 2022 - Apr. 2023
	<ul style="list-style-type: none">• Achieved a 6.7% improvement in ROC AUC compared to the latest product model with the initial Marketplace User Risk Estimate ML model• Reduced scam prevalence by up to 38.9% with a language model scanning marketplace messages• Developed initial ML tools and processes, onboarding 20 training pipelines and launching 4 models
	Senior Machine Learning Engineer, Ads Core ML Robustness, <i>Meta Inc.</i> June 2021 - Mar. 2022
	<ul style="list-style-type: none">• Tech lead of 2 machine learning research scientists• Mitigated the impact of signal loss, particularly Apple's App Tracking Transparency (ATT) policy• Researched and implemented ideas for calibration model improvements:<ul style="list-style-type: none">• A modified machine learning algorithm for a calibration model utilizing heterogeneous data (transfer learning data, anonymized aggregated data, ...etc.)• A modified machine learning algorithm for a calibration model utilizing time series model prediction
	Machine Learning Engineer, Ads Core ML Robustness, <i>Meta Inc.</i> Jan. 2020 - May 2021
	<ul style="list-style-type: none">• Built a new end-to-end calibration system in prepare of Apple's App Tracking Transparency (ATT) policy, improving calibration stability by 19.4%• Incorporated time-based signals into the calibration model model, for improving stability in the signal loss world. It improves calibration stability by 90% in the post-signal loss world
	Machine Learning Engineer, Ads Core ML Foundation, <i>Meta Inc.</i> Apr. 2018 - Dec. 2019
	<ul style="list-style-type: none">• Improved ads predictability by generalizing the ads ranking models, leading to 5% revenue gain• Built a machine learning validation framework for the ads ranking stack. The framework helped 3 teams meet their launch goal, and saved up to 21 engineers' working days
	Software Engineer Intern, Applied Machine Learning, <i>Meta Inc.</i> June 2017 - Sept. 2017
	<ul style="list-style-type: none">• To reduce space usage in the database, added a customer-defined time to live (TTL) attribute into the data pipelines• Reduced 80% space usage for short-term data and 40% for long-term data• Transformed the engine of the Facebook main machine learning platform
EDUCATION	Terra.do Climate Change: Learning For Action Jan. 2023 - Apr. 2023
	Zebra cohort
	M.Sc in Computer Science (GPA: 3.85/4.0) Sept. 2016 - Dec. 2017
	University of California, Santa Cruz
	Thesis: <i>Johnnie C-N. Chang, Robert H-J. Chen, Jay Pujara, Lise Getoor, "Clustering System Data using Aggregate Measures", SysML (2018)</i> https://mlsys.org/Conferences/doc/2018/201.pdf
	<ul style="list-style-type: none">• Proposed new aggregate measures for clustering system data• The new aggregate measures performed the best among state-of-the-art metrics by ~3.3%
	B.Sc in Computer Science (Major GPA: 4.03/4.3) Sept. 2012 - June 2016
	National Chiao Tung University, Hsinchu, Taiwan
SKILLS	Generative AI Safety, Integrity System, Recommendation Algorithm and System, Pytorch, Pandas, Python, C++, SQL, Hack/PHP