

EXPERIENCE

Senior Machine Learning Software Engineer at Facebook Inc, Seattle April 2022 - Now

Team; Manager: Commerce Integrity; Pamela Bhattacharya

- Constructed a vanilla user level detection model from the existing event level detection model
- Migrated a consolidated model that reduced number of models from 7 to 1

Senior Machine Learning Software Engineer at Facebook Inc, Seattle June. 2021 - March 2022

Team; Manager: Ads Core Machine Learning, Calibration and ML Robustness; Goran Predovic

- 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:
 - 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 Software Engineer at Facebook Inc, Seattle Jan. 2020 - May. 2021

Team; Manager: Ads Core Machine Learning, Calibration and ML Robustness; Goran Predovic

- Built a new end-to-end calibration system in prepare of Apple's App Tracking Transparency (ATT) policy, improve 19.4% calibration stability
- 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 Software Engineer at Facebook Inc, Menlo Park April 2018 - Dec. 2019

Team; Manager: Ads Core Machine Learning, Foundation; Gyanit Singh

- Improved ads predictability by generalizing the ads ranking models, having 5% revenue gain
- Built a machine learning validation framework for the ads ranking stack. The framework helped 3 teams meet their goal, and saved at most 10000*21 engineers' working days

Software Engineer Intern at Facebook Inc. June 2017 - Sept. 2017

Team; Mentor: Applied Machine Learning, Infra; Sunyu Duan

- 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
- Side project: transformed the engine of the Facebook main machine learning platform

Instructional Manager, team of 8 people Mar. 2016 - July 2016

National Chiao Tung University, Hsinchu, Taiwan

- Taught 100 high school students Python and AI by the Pacman Game
- Managed crew members and courses, wrote Python examples and Pacman Game environment

EDUCATION

M.Sc in Computer Science (GPA: 3.85/4.0) Graduated in Dec. 2017

University of California, Santa Cruz

Advisor: Lise Getoor

B.Sc in Computer Science (Major GPA: 4.03/4.3) Graduated in June 2016

National Chiao Tung University, Hsinchu, Taiwan

SKILLS

End-to-end Recommendation Algorithm and System, Python, C++, SQL, Hack/PHP

PUBLICATIONS

Johnnie C-N. Chang, **Robert H-J. Chen**, Jay Pujara, Lise Getoor

"Clustering System Data using Aggregate Measures" <https://mlsys.org/Conferences/doc/2018/201.pdf>
SysML (2018)

- Proposed new aggregate measures for clustering system data
- The new aggregate measures performed the best among state-of-the-art metrics

AWARDS

2nd Prize in Microsoft College Coding Competition, team of 3 people Nov. 2016

- Coding competition in UC Santa Cruz held by Microsoft, with 150+ participants
- Solved six out of eight coding problems in 3 hours