

EXPERIENCE

Senior Machine Learning Software Engineer at Facebook Inc.

Jan. 2020 - Now

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

- Mitigated the impact of signal loss, particularly the new online ads rule from iOS 14
- Tech lead of 2 machine learning engineers
- Built an end-to-end calibration system as a baseline solution
- Researched and implemented ideas for calibration model improvements:
 - Incorporated time-based signals into the calibration model
 - 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 utilize time series model prediction

Machine Learning Software Engineer at Facebook Inc.

April 2018 - Dec. 2019

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

- Improved ads predictability by generalizing the ads ranking models
- Researched and improved the way of measuring efficiency gains
- Building a machine learning testing framework for the ads ranking stack

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, SQL, Hack/PHP, C++

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

SPECIALIZED COURSEWORK

Advanced Machine Learning (Grade: A+)

- Implemented - Logistic Regression
- Support Vector Machine
- Bernoulli Mixture Model

Big Data Analytics (Grade: A+)

- Analyzed - Airline Dataset by Spark MLlib
- Taxi Dataset by Hadoop
- Health Insurance Dataset by MongoDB

Deep Learning (Online Course)

- Implemented - CNN for image recognition
- Word2Vec

Big Data with Spark (Online Course)

- Implemented - Alternating Least Squares
- TF-IDF for entity resolution

Statistics (Grade: A+)

Probabilistic Graphical Model (Online Course)