Tim Zhou

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EXPERIENCE

Meta | Software Engineer Oct 2023 – Present
- (WIP) Instagram Notifications

Meta | Data Engineer Sep 2022 – Oct 2023
- Developed an internal A/B experiment visualization tool using Hack (PHP) and React, scalable to all major experimentation use cases at Meta. Seamlessly integrated the tool with our experimentation and visualization platforms via internal Hack APIs
- Centralized the data architecture and optimized the delivery of messaging push notification quality metrics and visualization across Facebook, Messenger, and Instagram, resulting in 90% reduction in warehouse compute
- Streamlined the delivery of all Facebook Messaging performance, reliability, efficiency, quality (PREQ) analysis, experimentation metrics, dashboard visualizations via an extensible Python config and Dataswarm (Airflow) pipeline
- Spearheaded the cross-organizational effort of the first Facebook app badge quality metrics from metric ideation to logging improvements to metric definitions to data pipeline design to metric delivery
- Initiated the Better Engineering processes of my team building an oncall playbook, leading bug fixathons, enforcing standards of data quality check, serving as scrum master

CodeConnects | Computer Science Instructor: Sep 2021 – May 2022
- Instructed high school students the fundamentals of computer science in Python
- Co-authored and implemented a cutting-edge curriculum involving deep dives into syntax, data structures, OOP, algorithms, web APIs, time/space complexity, optimizations

Facebook (now Meta) | Data Engineer Intern May 2021 – Aug 2021
- Introduced a framework that defined the first response-participation metrics for Messenger
- Designed a data pipeline using Airflow(Dataswarm) and Presto to efficiently display metrics on a dashboard and built Hive tables to materialize metrics for A/B testing for Messenger Growth experiments
- Pioneered a new analysis framework to compound messaging participation with young adults and low engaged user activity, resulting in several pursued product and data quality recommendations

Purdue ECE | Teaching Assistant Jan 2020 – Dec 2021
- ECE 39595 (Object Oriented Programming in C++/Java) | Fall 2021
- ECE 20875 (Python for Data Science) | Spring 2021, Summer 2020
- ECE 368 (Data Structures & Algorithms) | Fall 2020
- ECE 264 (Advanced C Programming) | Spring 2020

SKILLS
- **Languages:** Python, SQL, PHP/Hack, Javascript, C, C++, HTML, CSS
- **Data:** ETL, Presto, Spark, Hadoop, Hive, Airflow (Dataswarm), Data Visualization, Data Modeling, A/B Testing
- **Frameworks, Machine Learning, Other:** Data Structures & Algorithms, Object-Oriented Programming, Django, React, Flask, Scikit-learn, TensorFlow, OpenCV, REST, Git

EDUCATION

Purdue University - Honors College | Bachelor of Science in Computer Engineering with Distinction GPA: 3.95/4.00
- Purdue Student Engineering Foundation Tech Director + Engineering Tour Guide
- Member of Purdue Alumni Student Experience (Largest Student Org) Board of Directors
- Member of Eta Kappa Nu (ECE Honors Society)

PROJECTS

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- Developed a Flask App that utilizes the Spotify Web API to help users conveniently create playlists consisting of suggested songs that don't appear in any other existing playlists.

"Coco" Detector
- Created my family's own dog (named Coco) monitor using the Tensorflow Object Detection API, Twilio Messaging API, and OpenCV
- Integrated detection with a Raspberry Pi and data collection with PostgreSQL database