Zhiqian (Cindy) Zhou

(573) 289-4092 · zhiqian5@illinois.edu · 1601 N Lincoln Ave, Building 7-N, Apt 713B, Urbana, IL 61801

EDUCATION

Master of Computer Science   **August 2019-December 2020**

University of Illinois at Urbana-Champaign (GPA: 3.87/4.0)   Urbana-Champaign, Illinois

Bachelor of Science in Computer Science   **August 2017-May 2019**

University of Missouri (GPA:3.9/4.0)   Columbia, Missouri

Bachelor of Engineer in Software Engineering (Dual Degree Program)   **September 2015-July 2017**

South China University of Technology (GPA:3.7/4.0)   Guangzhou, Guangdong

WORK EXPERIENCE

Software Engineer Intern, Facebook Inc., Remote.   **May-August 2020**

Unified Experiment Infra Metrics and Monitoring Framework

- Built a unified framework to allow quick iteration on adding new metrics and updating guidelines on Launch Proposal System, where advertising teams set up A/B testing segmented on users, hardware, etc. by scheduling proposals for their experiment
- Refactored Hack and React codebase to unify Infra Metrics definition and validation check, migrate model-based metrics to async flow by storing well-designed metrics json into database before generating proposal report, and make Infra Metrics config driven
- Collaborated with Platform team to discuss Metric Configurator Struct definition and Query Class design to develop a shared library with multi-layer inheritance based on metric types and data sources and templated method pattern
- Transformed metric query from plain SQL in Hive to Scuba (in-memory database) builder, developed Infra Metrics Realtime Query Tool with metric result and Scuba link providing query detail, and Thrift API support for the unified framework

Teaching Assistant, University of Illinois at Urbana-Champaign, Illinois.   **January-May 2020**

CS 374 Introduction to Algorithms & Models of Computation

- Taught two discussion sections per week with 20 students, held weekly office hours and tutored dozens of students independently

Research Assistant, Digital Biology Lab, University of Missouri, Columbia, Missouri.   **August 2018-May 2019**

Detection of Oil Concentration on Water Image

- Cooperated with US Geographic Survey which provided images of water samples with different oil concentration to develop a mobile application detecting oil pollution on local water based on images
- Proposed Histogram Attention Block (HAB) and integrated it into ResNet; this auxiliary block improved classification accuracy on both CAFAR-10 and our dataset by around 9%

PROJECTS

MU Research Publication Search Engine (Capstone)   **August 2018-May 2019**

- Integrated in an Agile Framework with a scrum team of 7 developers building cross-browser compatible web apps for users to find faculties with similar research interest and discover relevant publications on a weekly basis
- Developed related-article recommendation system using Word2Vec model to embed article, Bi-LSTM model for multi-label classification and Latent Dirichlet Allocation to calculate article similarity
- Built related-article recommendation web service using Python Flask Framework, transformed raw data from PubMed into MongoDB for near real-time search
- Encapsulated application into a reusable module by Docker containers using Pipenv as virtual environment version control

PUBLICATION

Ming, L., **Zhiqian, Z.,** Penghui, S., & Dong, X. (2019). Fuzzified Image Enhancement for Deep Learning in Iris Recognition. *IEEE Transactions on Fuzzy Systems.* Advance online publication. doi:10.1109/TFUZZ.2019.2912576

Ming, L., Lei, N., & **Zhiqian. Z**. (2018). Application of T-S fuzzy neural network to intelligent diagnosis of coronary heart disease. *Science & Technology Review*, *36*(17), 91-96.

TECHNICAL SKILLS

Computer language and toolkits: JAVA, SQL, MongoDB, Python, Hack, Thrift, Git

Core Curriculum: Data Structure and Algorithm, Database System, Distributed System, Machine Learning