Yue Deng

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EDUCATION

University of Southern California (USC), Los Angeles, CA, USA

Expected May 2023

• Master of Science in Computer Science

3.94/4.0

University of British Columbia (UBC), Vancouver, BC, Canada

Sep. 2016 - May 2021

• Bachelor of Science, Major: Computer Science

Top 5% International Student Scholarship

PROFESSIONAL SKILLS

Programming: Python, Java, C/C++, JavaScript, TypeScript, PHP, Julia **Database**: SQL, MongoDB, PostgreSQL, BigQuery, Firebase, MySQL

Web: Angular, React, HTML, Node.js, Flask, Bootstrap

Other: Pandas, Tensorflow, Keras, Pytorch, Numpy, SciPy, Pillow, AWS, GCP, Spark, JUnit testing

INDUSTRIAL EXPERIENCE

Qilin Technolgies

Jan. - Apr. 2021

Software Developer

Beijing, CN

- Built backend **APIs** with *Python Flask* to select and combine useful human skeleton key points and contour key points to provide real-time querying
- Designed and built a front-end tutorial web page using *React* and *Javascript*
- Implemented the *augmented classifier* with angle checking, proportion of body segment checking
- Performed *unit testing and end-to-end testing* on 8 app functions cooperate with other full stack developers per month before launching the new features

Zscaler Inc. May - Aug. 2022

Machine Learning Engineer

San Jose, CA

- Built an **object-oriented** analysis manager for fetching and processing raw data
- Selected relevant features by performing various aggregation operations on *BigQuery*
- Trained a basic upselling detection model and optimized by using *LightGBM* and *Catboost* models using data from 6sense to improved the accuracy rate from 56% to 75%
- Visualized and interpreted the impact level of each feature with **SHAP**

UBC R&D Jan. - Aug. 2020

Computer Engineer & AI Assistant

Vancouver, BC

- Utilized Keras to implement the inference script of the Knowledge Distillation model
- Applied multiple Tensorflow and Horovod distributed training strategies to save ½ training time
- Experimented with the *rotational-invariant* features and *Kalman filter* to fine-tuning the model
- Built the data processing pipeline to make result of *OpenPose* model compatible with D-chip
- Used the *PostgreSQL* to execute *spatial queries* and compute convex hull and nearest neighbor

PROJECT EXPERIENCES

Stock Trading Website

Jan. - Apr. 2022

- Built a full-stack web application which supports real-time stock price and graphic trend searching, portfolio and watchlist management and obtaining latest financial news on *AWS*
- Implemented and designed the frontend using Angular and Bootstrap using Javascript
- Built the backend APIs to acquire and pre-process the stock information with *Node.js*

Top Popular Song Engine

Aug. - Dec. 2022

- Designed and built **RESTful APIs** with **Python Flask** to make connection between frontend Web and database and pre-process more than **100,000** of songs data obtained from Tiktok and Spotify
- Built an emulated distributed file system (EDFS) with *Firebase Realtime database* and *MongoDB Atlas* supporting mkdir, ls, cat, rm and put operations
- Applied PySpark to support user querying and show the resurgence of nostalgic songs

The Little Prince Game: (RPG Game & Similar to Super Mario)

Sep. - Dec. 2020

- Implemented the entrance level and main sprite animation using *C*++ with *Entity Component System* design
- Applied exact collision checking and collision checking with bounding box
- Realized mouse and keyboard interaction using *GLFW* for main sprites controlling
- Designed and implemented auto chasing and shooting between sprites with GameAI

Buses Are Us Android App

Apr. - Sep. 2019

- Implemented the *Unified Modeling Language model* of the application to store and organize bus stop, bus route and arriving time with *Java*
- Performed *JUnit* testing with an *Android emulator* to improve code quality and shorten the development time by 1/4