Tong Zhou

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EDUCATION

Northeastern University, San Jose, CA
Master of Science in Computer Software Engineering   **Sept. 2018 - Dec. 2020**
Related Coursework: Algorithms, Web development, Smartphones-Based Web Development, Database, Data Science, Application Engineering, Cryptocurrency and Smart Contract

Tongji University, Shanghai, China
Bachelor of Engineering in Mechatronic Engineering   **Sept. 2010 - July 2014**
Related Coursework: Object-Oriented Design, Networks and Communication System, Operation System, Product Design, Product Management, E-Business

TECHNICAL SKILLS

Languages:	Java, Python, C/C++, JavaScript, HTML5/CSS3, Dart, MATLAB , SQL
Frameworks / Databases:	Node.js, Express, React, Flutter, SpringBoot, TensorFlow, Numpy, MySQL, MongoDB, Redis
OS / Tools:	Unix/Linux, Sublime, Git, SVN, Postman, IntelliJ IDEA, Eclipse, Jupyter Notebook, Android Studio

WORK EXPERIENCE

Cullinan Network Technology Co., Ltd, Shanghai, China
Software engineer Intern   **June 2019 - Aug. 2019**
- Designed and Established a solution based on Reddit-like Forum for traffic sources and community operations helped the company's business and content promotion, successfully completed the cold boot in the beginning
- Implemented a mobile client application using Flutter and Firebase that allows users to subscribe, post content, comment and vote on other people's posts
- Implemented an API allowing users to add links that were processed as video or images, and redirect to the original address

Institute of Software, Chinese Academy of Sciences, Beijing, China
Software engineer Intern   **July 2017 - Aug. 2017**
- Established a solution to solve problems of Data Storage, Range Search, and Nearest Neighbor Search, providing an algorithm to boost accuracy and efficiency by 40%
- Implemented a 1-km-side-length Grid Index to store dynamic geographical location for 80k+ groups of moving taxi in C++
- Trained the realtime model to locate the current nearest neighbor taxi, then assign the user the most near-by driver
- Improved program efficiency and reduced searching algorithm latency by 35% for analog data stream
- Deployed a simulative Android application that provided valid information user requested

Shanghai FENGTU Network Technology Co., Ltd, Shanghai, China
Game Designer   **June 2015 - Mar. 2017**
- Designed and built processing and calculation method of combat interaction system that players could fight with non-player characters or other real players in the Unity3D engine
- Established adaptive mathematical models applied in level and economic systems that provide players appropriate difficulty and growth experience
- Proposed prototypes to claim game functionality and user interaction design to artists and engineers
- Deployed version control plan and coordinated multi-teams across the organizations

PROJECTS

Prediction model of Bitcoin price based on TensorFlow   **Nov. 2019 - Dec. 2019**
- Analyzed the transaction volume distribution, fluctuations, data missing, and determine the Time interval using the real-time bitcoin price Time Series data set on Kaggle
- Split train/validation/test segmentation into the data set, fill and adjust the missing data, and conduct characterization
- Adjusted parameters to appropriate prediction accuracy in LSTM model
- Carried out regression evaluation index analysis of the predicted results and test data

Real-time news aggregating and recommendation web application   **Sept. 2018 - Oct. 2018**
- Implemented a data pipeline in RabbitMQ that monitored, scraped the news from multiple websites with high scalability
- Deduped scraped data using TF-IDF and stored them into MongoDB
- Developed a web application for users to browse news, and built user interface in React
- Implemented a behavior collection module which recorded click events, and updated a topic preference model for each user
- Designed and established an offline training pipeline for news topic modeling by CNN in TensorFlow
- Deployed an online classifying service for news topic modeling using the trained model

Global Game Jam (GGJ) 2018 China X CiGA - Shanghai   **July 2018 - July 2018**
- Designed and developed a single-player puzzle game using Typescript in Egret engine that players could move, jump and rotate the camera to detect clues that eliminate visual scams, which was considered one of the most creative works
- Established the data configuration method and designed the level data enables players to learn and discover challenges