Guangbo Yu

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OBJECTIVE

To enter a reputed Ph.D. program in Computer Science to deepen my knowledge in topics relevant to Artificial Intelligence and apply my research skills towards cutting edge research to advance the diagnostic and treatment capabilities of healthcare technologies.

EDUCATION

University of Southern California Los Angeles, CA
Masters of Science (M.S.) in Computer Science 2015-2017
Relevant Coursework: Machine Learning, Data Mining, Analysis of Algorithms, Applied Probability

University of Electronic Science and Technology of China Chengdu, China
Bachelors of Engineering (B.E.) in Software Engineering 2011-2015

PROFESSIONAL EXPERIENCE

New Beast Corporation Los Angeles, CA
Software Developer August 2017-July 2018
Designed and built data pipeline that monitors, scrapes and dedupes articles for news aggregator company that offers personalized feeds based on user behavior. Implemented a click event log processor that updates the feed based on user click logs through NLP.

- Primarily utilized MongoDB, Redis, RabbitMQ and TF-IDF.
- Built single-page web application for news browsing using React, Node.js, RPC, SOA, JWT

Luzhou Hospital Luzhou, China
Java Software Developer Intern January 2015-May 2015
Developed and maintained backend API of hospital's e-commerce system via SSM framework and implemented QR code payment module with Alipay SDK.

PROJECTS

Surgery Blood Cell Prediction (Los Angeles, CA) 2017
In collaboration with USC's Keck Hospital, built a Machine Learning system that optimizes the amount of blood required for surgical procedures. Pre-processed the dataset by filling in missing data, detecting outliers and cleaning the data; conducted feature engineering and statistical analysis including label encoding, log transformation, data visualization and feature selection. Built and tuned a Random Forest model to increase the mean absolute error by 102% compared to benchmark.

Movie Recommender System (Los Angeles, CA) 2017
Developed and built independent project that recommends five movie titles to the user based on their viewing preferences (using Item-based Collaborative Filtering and JAVA). The system utilized Netflix user data via Hadoop.

Byte Cup Machine Learning Competition (online) 2016
International Machine Learning Competition hosted by IEEE-China and Toutiao in which teams attempt to build the most accurate predictive models of community-based questions and answers. Constructed a 2-layer Stacking model in which the first layer used Factorization Machine (FM), LR and XGBoost as the base model, which were merged and then generated the meta-features. The second layer extracted SVD, TSNE, NMF dimension reduction information from the first layer FM model and combined this with the meta-features from the first-layer to train an XGBoost model.

Weenix (Los Angeles, CA) 2016
For the USC course Operating Systems taught by Dr. Bill Cheng, built a Unix-like OS kernel written in C in a Linux Environment. Implemented key components—process management, drivers for terminals and hard drives, VFS and page-based virtual memory—and system calls including fork, waitpid, execve, open, read/write, mmap and sbrk.

Twitter Sentiment Analysis (Los Angeles, CA) 2016
Course project for Data Mining at USC to calculate the sentiment scores of tweets. Extracted live tweets from Python and Oauth2 libraries and implemented the module calculating term frequency and document frequency. Used Apache Spark and Scala to derive Tweet Sentiment Score.

SKILLS

- **Programming Languages:** Python, Java, Javascript, C, Scala.
- **Tools:** Hadoop, Spark, Numpy, Pandas, Matplotlib, Seaborn, Git, Google Compute Engine

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LANGUAGES

- **Native Mandarin speaker; Fluent in English**