Mo Zhai

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A dedicated and results-oriented data specialist with years of experience in data development works on data-driven modeling, data engineering, and data platform design and implementation to solve real-world problems.

Proven skills in leveraging data science knowledge and software development experience, with an excellent ability to work independently and teach lead skills to solve challenging business problems in a fast-paced, dynamic, and cross-functional team.

Skills

Field & Practices: Machine Learning, NLP, Database Design and programming, NLP, Distributed Computing, Statistical Analysis, Reinforcement Learning, Mobile development, Web/Application development
Programming Language: Python, R, SQL, Swift, C#, C++, Java, JavaScript, CSS…
Frameworks: Pandas, Numpy, Spark, Scikit-learn, Shiny app, PyTorch, iOS, ASP.net, OpenGL, Android, Keras, React Native, Liferay, Tableau…
Tools: Linux, Jupyter, VS Code, XCode, R studio, git, Azure, PyCharm, Eclipse, Jira, Unity3D…

Education

University of Chicago - Master of Science in Analytics   **03/2016 - 12/2018**
Courses: Adv. Machine learning, Statistical Analysis, Time Series, Deep Learning, NLP, Bayesian Methods
Honorable Capstone Showcase for Graduation **(GPA: 3.9)**

DePaul University - Master of Science in Computer Game Development   **09/2009 - 03/2012**
Graduation with distinction **(GPA: 3.98)**

Experience

Sr Bus & Tech Sol Analyst@ William Blair & Company   **6/2018 - now**
- EMD team data service design and implementation, including ETL from data vendors, SQL and NoSQL database design, data API implementation for frontend app, and EM corporations risk data model design and SQL development.
- Design and implemented Country ESG modeling and data refreshing pipeline
- Lead the data validation projects and created the data validation framework with standardized data check scripts and Shiny app dashboard to detect and monitor data quality.
- Lead student data science research projects with the University of Chicago MSCA program.
- Implemented the equity valuation model backend API in python.
- R packages development. Updated IM Portfolio attribution R package to speed it up at least 10 times faster to help the back office generate daily reports in time. Design and implementing Data access package in R for multiple platform data access
- Backtesting project for finance and deep reinforcement learning for finance research in Python.
- Azure data factory, spark, and other data engineering projects

Data Science Instructor @ Coding Temple   **1/2018 - 6/2018**
- Design and write data science class curriculum covering machine learning algorithms and programming languages.
- Lecturer of Database Design, NLP, Machine learning, Python, Web development (Flask) classes

Data Science Capstone Consultant @ Spectrum Communications & Consulting   1/2018 - 8/2018

- Research on Google Adwords problem for efficient ad text design
- Implemented ad auto-generation algorithm using predictive models with friendly web user interfaces
- Win the university of Chicago Honorable Capstone Showcase

Software Engineer @ Echelon Consulting, L.L.C.   5/2012 - 9/2017

- Visualization Price Reporting dashboard for Analysis: SQL Server, ASP Web API, Kendo UI,
- Athletic Club Website and Mobile App: Database design. ASP web API design and implementation. Drupal (PHP) and jQuery frontend implementation. Sales mobile iOS app with transaction functionalities (frontend to backend).
- Synergy Financial Analysis Project: Developed core financial web applications (with analysis and visualization competent) for a global business using ASP.Net MVC, Dojo JS and SQL Server.
- Mobile Apps for a Global Law Firm: Implemented secured iOS/Android apps (front-end to back-end).
- Liferay Portal Site: Upgraded the company website for a global management consulting firm using Liferay. Implementing and supporting the company HR and portal website (Java).
- Location Tracking app: Implemented tracking system with hybrid app (Cordova) component.

Software developer internships @ Space to Play   2/2012 - 4/2012

- Accomplished a 3Ds Max plug-in in C++, which facilitates editing and visualization of urban 3D building models from geo-spatial database (Post GIS).

Graduate Assistant and Tech support @ CDM, DePaul University   01/2011 - 03/2012

Network Engineer @ China Mobile   08/2007 – 03/2009

- Analyzed, and refined the central node of the company PSTN network.
- Analytics tools development for a multiple million equipment upgrading project.