JINGTIAN ZHANG

Data Science / Full Stack Web Development

Seattle, WA 98105

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720-556-3707

• 3+ years of research experience in data science and business analytics, especially on the application of data-driven approaches to research and development of materials. Multiple data projects in research areas, including 1 publication on ACS journal and 1 waiting
• 2+ years of full-stack web development experience, versed with MERN stack and Django.
• Proven handling of cost-conscious, enterprise-grade data movements and current on cloud/hybrid analytical technologies (big data, lakes, stream analytics, NoSQL, DWH, ETL/ELT)

• Organized, dedicated and proactive with an in-depth understanding of engineering and data science, especially on data analytics and machine learning

Willing to relocate: Anywhere

Authorized to work in the US for any employer

WORK EXPERIENCE

Research Assistant

University Of Washington - Seattle, WA
January 2020 to Present

• Designing a website for UW Material Science & Engineering Lab
• Working on projects that aid the development of new materials for renewable energy, synthetic materials, and others.
• Improving the algorithm for self-organizing mapping (SOM), one of the main unsupervised ML technique we use for data-driven investigation in the field of material science and engineering
• Building NLP pipeline for text and data mining that works on chemistry domain to help users gain structured data from the large corpus easily
• Researching on a big data project, no details can be discussed

Hydraulic Fracturing and Refracturing Externship

PETROLEUM ENGINEERING - Golden, CO
June 2017 to August 2017

• Funded by major oil and gas companies
• The goal was to determine whether wells can be profitable based on geographic data provided build fracture modeling and economic prediction using GOLFER and ValNav to boost the productivity
• Successfully boost productivity to 135%

EDUCATION

Master's in Chemical Engineering - Data Science

University of Washington-Seattle Campus - Seattle, WA
September 2017 to Present

Bachelor's in Petroleum Engineering

Colorado School of Mines - Golden, CO
September 2013 to May 2017

SKILLS

- **React**
- **Javascript**
- **Node**
- **Python (4 years)**
- **Data Mining (3 years)**
- **Data Science (3 years)**
- **Cloud Computing**
- **Microsoft Office**
- **SQL**
- **HTML**
- **Business Intelligence**
- **testing**
- **AWS**
- **Jquery**
- **Nodejs**
- **Data Visualization (3 years)**
- **Web Development (3 years)**
- **Team Management**
- **Communications**
- **MS Office**
- **Visio**
- **Powerpoint**
- **Excel**
- **VBA (4 years)**
- **MATLAB (2 years)**
- **Databases**
- **Django**
- **OOP**
- **Adobe XD (1 year)**
- **CSS (3 years)**
- **Spark (3 years)**
- **Statistics**
- **NoSQL**
- **Graphic Design**

- **Google Cloud Platform**
- **Heroku**
- **AWS**

LINKS

https://github.com/Zhangjt9317

https://www.linkedin.com/in/jingtian-zhang-287314119

CERTIFICATIONS AND LICENSES

UDACITY DEEP LEARNING NANODEGREE

December 2018 to April 2019

• Fundamental and advanced deep learning concepts and applications of neural networks, CNN, RNN, and GAN
• Projects like Generate faces, Generate TV scripts and Sentimental Analysis

LAIOFFER CERTIFIED DATA SCIENTIST

• Comprehensive coursework for the latest trends in the industry
• Data structure and algorithms, cloud deployment, machine learning, and deep learning, data streaming, data analysis, SQL, web development

UW CODING BOOTCAMP

September 2018 to April 2019

• Full-stack web development
• HTML5, CSS3, JavaScript, jQuery, Bootstrap, Express.js, React.js, Node.js, Database Theory, Bookshelf.js, MongoDB
• MySQL, Command Line, Git, and more

Data-Intensive Training program (DIRECT)

December 2017 to April 2018

• sponsored by UW Clean Energy Institute
• perform data-related training on data science, data analysis, artificial intelligence and their applications on the energy industry
• one research project and a capstone project were done and review by committee members

ASSESSMENTS

Critical Thinking — Highly Proficient

May 2019

Using logic to solve problems.
Full results: https://share.indeedassessments.com/share_assignment/g8nmfjl7y6ayz1jc

Data Analysis — Proficient

May 2019

Measures a candidate's skill in interpreting and producing graphs, identifying trends, and drawing justifiable conclusions from data.
Full results: https://share.indeedassessments.com/share_assignment/e-izf2px9lnqg2c5

ADDITIONAL INFORMATION

Projects

Structure-Property Correlation Study for Organic Photovoltaic Polymer Materials Using Data Science Approach

• A self-organizing mapping (SOM) algorithm is designed to be applied on organic photovoltaic polymer dataset to reveal potential correlations among properties
• Visualization tools are designed to better reveal correlations among variables
• Currently being reviewed by Journal of Physical Chemistry C
• GitHub Repo: https://github.com/DataScienceUWMSE/SOM_OPV.git

DIRECT - PV Estimation for the City of Anchorage (ACEP)

• The project will determine the technical siting potential for commercial-scale solar photovoltaic (PV) installations of 1,000 kW (AC) or larger throughout Anchorage, within the built environment
• The model is generated by using Python and ArcGIS and QGIS. It can be applied to other regions for solar power estimation based on provided LIDAR data
• Results are provided in a kmz file that can be opened in google map and an excel worksheet
• GitHub Repo: https://github.com/Yueningwang/ASAP.git

Netflix Movie Data Analysis & Recommendation System Engine Development in Apache Spark

• Build data ETL pipeline to analyze the movie rating dataset and conducted OLAP with Spark SQL.
• Implemented the Alternative Least Square model to provide customized movie recommendation and developed user-based approaches to handle system cold-start problems
• Conducted model hyper-parameters tuning with Spark ML cross-evaluation toolbox and monitored data processing performance via Spark UI on AWS

Stock Prices and Market Index Prediction based on Deep Learning

• Analyzed the volatility feature of stock price and market index
• Building a deep learning model via TensorFlow based on NASDAQ stock data to predict stock price variation and stock market index
• Trained LSTM model by changing activation and regularization function via TensorFlow on GPU
• Deployed the built LSTM model as a service to predict the variation of S&P 500 index

Kuberflow Pipelines for Machine Learning and AI Application

• Building a unified ML/AI data pipeline based on Google Cloud Platform, covering data analysis, data preparation, and feature engineering, model training and deployment in the cloud
• Tuning deep and wide models based on TensorFlow for better algorithms performance and manage the data pipeline