# Shan Xu

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#### OBJECTIVE

Highly motivated and passionate analytics professional looking for a full-time position in data science field, where I can enjoy solving business problems through a combination of technical skills and business knowledge

#### QUALIFICATIONS

- 2 years of programming experience in SQL, Python, R and SAS
- 2 years of experience in business process modeling and data management
- 2+ years of experience in data analysis
- Excellent team worker with strong communication skills

#### EDUCATION

### University of Connecticut

Storrs, CT

Moscow, ID

M.S. Business Analytics and Project Management, 08/2019

University of Idaho

M.S. Soil and Land Resources Sciences, 07/2011

# Sichuan Agricultural University

Ya'an, China

**B.S.** Land Resources Management, 07/2007

#### EXPERIENCE

Graduate Analytics Consultant (Capstone), LIMRA Inc., Windsor, CT 01/2019 - 04/2019 Built classification models (e.g. Decision Tree and XGBoost) for customer acquisition marketing campaigns for deferred annuity sales. Generated insights into customer stratification to aid targeted marketing strategies. My contribution included data preprocessing, model development, and model performance evaluation (e.g. achieved 83.7% accuracy) in R. Our project was ranked 1st by the sponsor among all seven participating teams.

#### Sales Analyst, Yonkon Pharmacy Inc., Chengdu, China

09/2013 - 08/2015

Gathered and processed sales and clinical data (e.g. physicians' feedback) of various medicine products. Applied needs based customer segmentation to predict sales trend and target customers more effectively. Built inventory control model to make effective replenishment strategies in order to reduce costs. Increased profit margin by 11% and pharmaceutical sales revenue by 23%.

### SELECTED COURSE PROJECTS

### Selected Course Predictive Modeling on Adult Census Income Dataset

01/2018 - 05/2018

The goal of this project was to help optimize budget allocation for the marketing campaign of a company that sells laptops. My contribution included data preprocessing, and model development to identify important predictors for potential customers.

# Video Game Sales and Ratings Prediction

09/2018 - 12/2018

Applied machine learning techniques (e.g. Gradient Boosting and Neural Network) to explore key factors in predicting video game sales using Python. Preprocessed raw video games sales with ratings data, built regression models to predict game sales and generate business insights.

## Trading Strategy Prediction on Cryptocurrency Market

05/2018 - 08/2018

Preprocessed historical bitcoin data, and applied time series analysis technique (ARIMA model) using R to analyze bitcoin prices, such as seasonality and trend. Then applied neural network technique (LSTM model) to forecast bitcoin prices and generate insights for trading strategy.

#### Business process Modeling for LED manufacturing company

01/2018 - 05/2018

Modeled business process of LED manufacturing company using Visio, designed data schema and created database in Oracle. Analyzed potential inefficiencies in the supply chain and provided recommendations for improvement.

# SELECTED RESEARCH PROJECTS

Graduate Research Assistant, Advisor: Jodi Johnson-Maynard

01/2009 - 07/2011

## • Study of Soil, Plant and Earthworm Relations in Endangered Palouse Prairie

Investigated the environmental impact of invasive species (both earthworms and plants) on soil carbon and nutrient availability in the Palouse Prairie. The objective was to develop long-term strategies for the restoration of prairie ecosystem and preservation of the native species.

### • Modeling Giant Palouse Earthworm Potential Habitat

Employed the GIS binary (deductive) and MaxEnt (inductive) models to predict the potential habitats of the endangered Giant Palouse Earthworm (GPE).

# • Environmental Spatial Statistics Using R

Utilized the environmental spatial statistics to interpolate the value of soil nutrients at unobserved locations from observations of its value at nearby locations. Spatial patterns were examined using the statistical package R.

SKILLS

- Programming Languages: Python, R, SQL, SAS
- Engineering Software: Oracle DB, Tableau, JMP, Apache Hadoop & Spark, Google Analytics, SAS Enterprise Miner, Microsoft Visio, ArcGIS, Maxent

Honors and Awards • SAS Certified Base Programmer for SAS 9, Certificate No: BP064310v9

• Excellent Undergraduate Student Award, Sichuan Agricultural University

2010

• Gene & Marlene A. Easton Scholarship, University of Idaho

2007

2016

SELECTED
PUBLICATIONS

Shan Xu, Jodi Johnson-Maynard, Timothy Prather, Earthworm Density and Biomass in Relation to Soil Properties and Plant Diversity in a Palouse Prairie Remnant, Applied Soil Ecology, Volume 72, Pages 119-127, Oct. 2013

Shan Xu, Jodi Johnson-Maynard, Timothy Prather, Linkages among Soil Properties, Invasive Earthworms and Plants in a Palouse Prairie Ecosystem, ASA-CSSA-SSSA International Annual Meeting, San Antonio, TX, USA, Oct. 2011