Lei Cao



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Highlights: (This CV has Two pages)

- (GPA 4.00) MS Computer Science, CSU, Dominguez Hills
- 5 years as a Software Engineer, Data Science Intern, AI Intern
- Data Analyst Nanodegree from Udacity.com
- Mastering Data Science Applied Lab, TheDevMasters
- Experience in Internet Startup projects

Experience

- Create NLP class content with AI Bootcamp teacher
- Create a Chatbot using TensorFlow with word2vec
- Assist to setup a MongoDB server

Data Science Applied Lab at the DevMasters Oct 2017 – Present

- Project Based Learning
 - Recommendation Systems
 - Natural Language Processing and Sentiment Analysis
 - Wrote algorithm, utilized Twitter API, search an topic
 - From scratch, analyzed tweets content into positive and negative sentiment
 - · Big Data with Spark and Splunk
 - Deep Learning and Time Series
 - Computer Vision with OpenCV
 - Used webcam to create a real-time facial&object recognition program
 - Created a web scraper on a Django platform.
 - Blockchain Technology, Aritificial Neural Nets

- Selenium + PyUnit End-to-end testing.
 - Using Python Unittest frameworks and Selenium API
 - Coding test cases to simulate user's actions on the company's website
- Web Scraping(Beautiful Soup) and Data Analysis

Graduate Research at California State University-Dominguez Hills Aug 2017 - Present

- Project: Big Data Analytics and Visualization of California Transportation
 - Presented in HENAAC '17 Conference
 - Built a model to predict road accident trend given economic data
 - Built Apache Spark and Hadoop cluster from scratch in Chameleon Cloud
 - Learned: I. How to find valuable insights into large datasets, in this case, a correlation
 - II. How to use Spark to perform big data analysis

- Project1: School Database Software System Development Financial and Administrative System
 - VBA, Microsoft Access Database, SQL (3000 + lines of code, 100+ features)
 - Provide data science insight to assist advertising and recurring billing cycles
 - The software system handles 500 enrolled students per semester, 5000 overall.
- - Immersive English Learning Experience using Panoramic Video
 - Software: Unity3D + Google Cardboard SDK + Cardboard goggles. Hardware: Ricoh Panoramic Camera

Skill Sets

- Data Science Pandas, Numpy, Matplotlib, Tableau, Seaborn, Machine Learning, Deep Learning, Selenium, PyUnit
- Machine Learning Natural Language Processing, Recommendation System, Image Classification
- Big Data Analytics Spark Deployment, Hadoop cluster Deployment, Distributed Computing, MapReduce Algorithm
- · Artificial Intelligence Deep Learning, Convolutional Neural Network, TensorFlow, Softmax Regression, Machine Learning
- Programming Languages Python, Java, SQL, VBA, C++, Linux, CSS, HTML, JavaScript, Scheme, Prolog, R
- Misc. AWS Cloud Deployment, Chameleon Cloud, Jupyter Notebook, Microsoft Access Database, MongoDB
- Virtual Reality C#, Unity3D, Google Cardboard VR video player development

(Projects on the Next Page)

Projects Loan Status Prediction Jan 2018 • Used given bank customer info on loans to predict if a new customer is likely to fully pay the loan. • Used multiple machine learning algorithms Titanic Passenger Survival Prediction Jan 2018 Kaggle Competition Leaderboard Top 5% • Machine Learning: Gradient Boost Classifier, 887 features, House Price Prediction in King County Jan 2018 • Machine Learning – Linear Regression, • Feature Engineering Found a seasonal pattern for gun shopping • Found the most related variable of US census data to FBI Gun data • (Accuracy 99.2%) Built A Convolutional Neural Networks in TensorFlow. Hadoop Cluster in Chameleon Cloud Mar 2017 - Jun 2017 • MapReduce algorithm to compute and analyze a multi-year H1B visa petitions dataset. Visualization in Jupyter Notebook by Python Pandas and Matplotlib • Learned: I. How to set up a Hadoop cluster in a Cloud environment from scratch. II. MapReduce algorithm, Visualization **Education**

Volunteer

- Website Beta Evaluation and Testing
- Commented on Data Source quality, Search Scenarios, Data Visualization, Overall Experience, etc.

Other Activities and Awards

• Research Poster Competition in HENAAC 17 conference	Oct 2017
• A member of ACM and CAHSI (Computing Alliance of Hispanic-Serving Institutions)	Since Sep 2017
Municipal Coding Champion – Elementary School	1996
Work Experience in Sudan for two years as an Interpreter & Business Manager	
• President of the Spoken English Association, Awarded "Excellent Student Organization Leader"	2004