**Evan Xiangwen Liu**

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**Professional Summary:**

* Solid understanding in Machine Learning algorithms, Statistics and Data Mining
* Strong programming skills in Python, C++, Java, C# and Database SQL
* Experiences of Scientific tools including TensorFlow, Theano, Torch, Keras, NLTK
* Hands on experience in implementing LDA, Naive Bayes and skilled in Decision Trees, Linear and Logistic Regression, SVM, Clustering, Principle Component Analysis
* Experiences on Deep Learning models including CNN, RNN, LSTM, GAN, Autoencoder, RBM, DBM and DBN
* Experience in developing web pages and user interfaces using HTML4/5, CSS, AJAX, JQuery and JavaScript

**Education**

* Ph.D. May 2019 (Expected)

In Computer Science, University of Arkansas at Little Rock(UALR), AR, US

* Master. May 2014

In Computer Science, Texas A&M University, Commerce(TAMUC), TX, US

* Bachelor. June 2007

In Mechanical Engineering & Automation, Tongji University, Shanghai, China

**Honors/Volunteers**

* 1st Place Grad Award April 27th 2018

Annual EIT OPEN HOUSE Donaghey College of Engineering and Information Technology

* Group leader April 12nd 2018

UA Little Rock Student Research and Creative Works Showcase

* Coaches leader April 15th 2017

Science Olympiad Arkansas State Tournament

* Volunteer August 8th, 9th 2017

University of Arkansas at Little rock New International Student Orientation

**Research & Work Experience:**

**Graduate Research Assistant UALR Aug 2017 – Now**

* Implemented LSTM neural network model in combination with news data and tweets data conduct time series analysis dataset. Extracted new features and identified their importance
* Performed Latent Dirichlet Allocation (LDA) algorithm to conducted NLP topic modeling for BBC news dataset and find the most prevalent topic for each news.
* Predicted sentimental score using Support Vector Machines on text data using TFIDF embedding and word2vector (lightSVM-Multiclass)
* Analyzed unlabeled data using clustering and Silhouette score and using Convolutional neural network(CNN) and deCNN to transfer abstract features to new labeled data.

**Research Assistant Food and Drug Administration (FDA) Aug 2016 – July 2017**

* Improved the Detection Power for Ultralow-frequency Mutations of gene with deep neural network
* Performed data acquisition, data preprocessing, data engineering, features scaling, features engineering, statistical modeling (decision trees, regression models, neural networks, SVM, clustering) on FDA Label data
* Improved image data detection with dimensionality reduction using Principal Component Analysis and Autoencoder, avoid overfitting with K- fold cross validation.
* Created Complex Queries, Stored Procedures, Functions, Indexes, Packages and Materialized Views to access data from database using SQL Server2008

**Teaching Assistant TAMUC Aug 2012 – July 2016**

* Teaching graduate students on C++ and database in Lab
* Assisted professors on teaching and grading of C++ and database courses

**Application Developer Siemens Jun 2007 – Dec 2011**

* Applied regression analysis to forecast sale of products and regional distribution
* Used Java script and JQuery for better interaction and better performance.
* Performed data profiling and data quality improvements in company Database
* Worked with ASP.NET Web Forms, Web Services, and State Management, Caching features, configuring optimizations and securing the web application
* Architected, designed, implemented and maintained various C# and Java based web services using ASP.NET MVC, Web API, and Java
* Developed logical data models and physical data models using ER-Studio
* Created a nonlinear model to develop the motion detection of surveillance system