

**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

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**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

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**Honors/Volunteers**

- 1<sup>st</sup> 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

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**Research & Work Experience:**

<b>Graduate Research Assistant</b>	<b>UALR</b>	<b>Aug 2017 – Now</b>
<ul style="list-style-type: none"><li>• 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</li><li>• Performed Latent Dirichlet Allocation (LDA) algorithm to conducted NLP topic modeling for BBC news dataset and find the most prevalent topic for each news.</li><li>• Predicted sentimental score using Support Vector Machines on text data using TFIDF embedding and word2vector (lightSVM-Multiclass)</li><li>• Analyzed unlabeled data using clustering and Silhouette score and using Convolutional neural network(CNN) and deCNN to transfer abstract features to new labeled data.</li></ul>		

**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