Yu Zhao
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EDUCATION

➢ **The University of Georgia, Athens, GA**   August 2013-present
   Ph. D. student of Science in Computer Science   **Cumulative GPA: 3.95**

Courses taken: Massive Mining of Data, Software Engineering, ADV Topics in Data Intensive Computing, Computer Network, Machine Learning, Image Processing, Evolutionary Computing, Graph Theory, ADV Biomedical Image Analysis, Biomedical Image Analysis, Automata and Formal Language

➢ **Huazhong University of Science and Technology, Wuhan, China**   August 2009 - June 2013
   Bachelor of Control Science and Engineering   **Cumulative GPA: 89.01/100, Rank: 11/223**

Thesis: Simultaneous Multi-frame Super-resolution Restoration (image processing)

PROJECT EXPERIENCE

➢ ***Big Data and Machine Learning related*:**
- Autism Spectrum Disorder(ASD) related Large data mining using **Apache Spark**
  - ✓ Used Apache Spark performing high-speed feature metric computing
  - ✓ Analyzed clustering of brain functional networks in ASD with comparisons to control subjects
- Machine learning implementations using
  - ✓ Implemented Naive Bayesian classification algorithm using **Hadoop** API
  - ✓ Implemented K-means clustering tool using **Apache Spark**
  - ✓ Implemented Stochastic Gradient Descent algorithm using **Apache Spark**
  - ✓ Designed a template supervised dictional learning algorithm for fMRI images decomposition

➢ ***Software engineering related*:**
- "Dawg-trades": UGA On-Line Auctioning System project
  - ✓ Mastered skills in HTML design, jsp and database
  - ✓ Gained Software development experience

➢ ***Deep Learning related*:**
- Classification using Deep Learning Neural Networks
  - ✓ Used GPU-accelerated python 3D CNN API to accomplish brain functional networks classification. **Publication in preparation**: 3-D Functional Brain Network Classification using Convolutional Neural Networks
- Clustering using Deep Convolutional Autoencoder (CAE) obtained features
  - ✓ Used 3D deep CAE to extract brain network features for fine-granularity atlas construction. **Publication in submission:** Contructing Fine-granularity Functional Brain Network Atlases using Deep CAE.

SKILLS

C, C++, Java, Python, Matlab, Hadoop, Spark, MySQL, Linux System Administrator, docker

RESEARCH and EXCHANGE EXPERIENCE

Research Assistant, Cortical Architecture Imaging and Discovery(CAID) Lab, UGA   8. 2013-present
- **Summary**: neuroimaging related research using computer science techniques including machine learning, big data and deep learning

Visiting Student, IDEA lab, UNC Chapel Hill   6.2016-7.2016
- **Summary:** Group-wise registration for fMRI images

Visiting Student, Biomedical Imaging and Analysis Joint Lab, NPU, China   7.2015-8.2015
- **Summay:** Deep learning neural networks (Auto-encoder, RBM) for fMRI image decomposition

SELECTED PUBLICATIONS

➢ **Yu Zhao**, et. al. NeuroImage: Clinical, 2016. vol.12, pp 23-33. Connectome-scale Group-wise Consistent Intrinsic Connectivity Networks Analysis in Autism Spectrum Disorder
➢ **Yu Zhao**, et. al. ISBI, 2017, in press. Template-guided Functional Network Identification via Supervised Dictionary Learning
➢ Dehua Ren, **Yu Zhao**, et. al. ISBI, 2017, in press. 3-D Functional Brain Network Classification using Convolutional Neural Networks.
➢ **Yu Zhao**, et. al. ISBI, 2017, in press. A Novel Framework for Groupwise Registration of fMRI Images based on Common Functional Networks.
➢ Hanbo Chen, **Yu Zhao** et. al. Construct and Assess Multimodal Mouse Brain Connectomes via Joint Modeling of Multi-scale DTI and Neuron Tracer Data. MICCAI, LNCS, 2014. vol. 8675, pp. 273-280.