

Tianxiao JIANG

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EDUCATION

Spring 2014 - Fall 2017	PhD (expected), Biomedical Engineering, University of Houston , USA, GPA: 3.6/4.0
Fall 2012- Spring 2014	MSc, Electronic Engineering, Shanghai JiaoTong University , China, GPA: 3.6/4.0
Fall 2008 - Fall 2012	BSc, Electronic Engineering, Shanghai JiaoTong University , China, GPA: 3.5/4.0

EXPERIENCE

<i>March, 2014</i> CURRENT	Research Assistant, Advisor: Dr Nuri Firat Ince, Clinical Neural Engineering Lab , University of Houston <ul style="list-style-type: none">Developed a low-cost, real-time system for neural signal and sensory data collection, saving hundreds of thousands dollars of cost. The system design is accepted in a top conference [1].Developed a open-source software (GPLv3) for neural signal analysis (CNELab). Increased the speed of filtering by 20% with multithreaded programming. (Matlab, OO, Java Swing, C++)Developed a real-time sensory data collection and video recording software with data server and UDP transmission protocol (CNEBehv). (WinAPI, WinSocket, AMCap, C++, OO)Designed a wireless Teensy&Bluetooth sensory data collecting device and implemented a software buffer that solved jittered bluetooth communication problem. (Arduino, C++)Decode hand function from high-dimensional brain signal with nearly 100% accuracies using novel signal processing and sparse decoding techniques. Results got awarded and published in a top IEEE journal.
2012-2014	Research Assistant, Advisor: Dr Yu Qiao, Pattern Recognition Lab, Shanghai JiaoTong University <ul style="list-style-type: none">Developed a smoke detection software with Wavelet and Gaussian Mixture Model algorithms written from scratch (GitHub). Project got awarded on the East-China Grid conference. (C++, OpenCV, OO)
2013-2014	Back-end Intern, ELE.ME , Rajax Co <ul style="list-style-type: none">Proposed and implemented a menu recommendation engine based on Apache Mahout (Java, JDBC)Gained techniques such as Git, Java, SQL, Django and Vim.
2012	Software Engineer Intern, Jindu Co <ul style="list-style-type: none">Improved image registration accuracies by 25% through correcting the rotation matrixDeveloped and field tested a virtual-reality game based on Kinect. It was well-accepted at Beijing Auto EXPO 2012. (C++, OpenCV, OO)

EXTRACURRICULAR PROJECTS

Wrote two websites from scratch using popular frameworks such as Django, AngularJS, Bootstrap, JQuery, PostgreSQL, etc. and served using AWS (S3+CloudFront) for production.

- [tianxiaojiang.com](#): Personal website for blogging on topics of algorithms, data structure, signal processing techniques, etc. Integrated fast online C++ code editor and compiler by using Coliru and Ace. (C++, Django, JS, PostgreSQL)
- [cnelab.org](#): Website that introduces and documents the CNELab software. (under development, Django, JS)

TECHNICAL SKILLS

Intermediate: Python, Javascript, Java, HTML5, CSS, PostgreSQL, JQuery, Ajax, AngularJS, Arduino, CloudFront

Advanced: C/C++, WinAPI, Linux, Vim, Socket, Multithreading, OpenCV, Django, Bootstrap, Matlab, Simulink, Latex, R

AWARDS

- Best paper award**, 1st International Conference on Neuroscience and Cognitive Brain Information 2016 [2].
- Oral presentation**, 7th International IEEE/EMBS Conference on Neural Engineering (NER) 2015.
- Graduate Research Assistantship**, BME, University of Houston.
- First Prize Mathematics Olympiad**, Jiangsu Province, China.

PUBLICATIONS

- Tianxiao Jiang**, Hasan Siddiqui, Shruti Ray, Priscella Asman, Musa Ozturk, and Nuri Ince, Firat, "A Portable Platform to Collect and Review Behavioral Data Simultaneously with Neurophysiological Signals," in *Proceedings of 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS*, (Jeju Island), 2017.
- Tianxiao Jiang**, Tao Jiang, Taylor Wang, Shenshen Mei, Qingzhu Liu, Yunlin Li, Xiaofei Wang, Sujit Prabhu, Zhiyi Sha, and Nuri F Ince, "Classification of Hand Flexion / Extension Using High-density ECoG," in *BRAININFO 2016 : The First International Conference on Neuroscience and Cognitive Brain Information Classification*, no. c, (Barcelona), pp. 1–4, 2016.

[More publications](#)