Chao Jiang

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OBJECTIVE

My research interests include data mining and machine learning. I am working on privacy-preserving data sharing and analysis.

R&D EXPERIENCE

Software Development Intern, Centromere Inc., San Diego, CA USA

Intel SGX Web Attestation: Developed a web client to communicate with server side (running on ubuntu) and verify each identity　　　Aug. 2016 - Feb. 2017

- Advisors: Dr. Feng Chen
- As a sole developer for this project, I am not only learned how to program using specific langauge such as JS, how to exchange information between client and server; but also learned the way how to be a faster learner, how to solve problems independently. (Key word:) JS, PHP, Bootstrap/AJAX, Web Cryptography, CryptoJS-Extension(AES-CMA), cURL, Big/Little Endian, Multi-thread, Acess-Control-Allow-Origin, JSONP, CORS

Programmer Analyst, DBMI-UCSD, San Diego, CA USA

iCONCUR: A novel web-based tiered informed consent management system　　Aug. 2016 - Feb. 2017

- Advisors: Dr. Xiaoqian Jiang, Dr. Hyeoneui Kim
- We developed mobile iCONCUR application to improve the accessibility to this system.
- One paper titled "Honoring Patient's Data Sharing Preferences: Implementation Challenges" has been submitted to AMIA 2017 with an additional poster.

Visiting Graduate Student, DBMI-UCSD, San Diego, CA USA

Count Everything: Integrating Clinical, Genomics, and mHealth APIs Across the BD2K Programs　　　Jan. 2016 - Aug.2016

- Advisors: Dr. Xiaoqian Jiang
- Synthetic data generation, develop API mapping protocols, develop integration mechanisms for combining APIs, develop Docker based recipe to build and deploy the system.
- Our result has already been submitted to AMIA 2017.

Distributed logistic regression based on Intel SGX　　　Jan. 2016 - Aug.2016

- Advisors: Dr. Shuang Wang
- Implemented privacy-preserving distributed logistic regression based on Intel SGX.
- The result was stated in my thesis "AGILE: Arbitrary GrId Logistic rEgression using Intel Software Guard Extensions."

IOS Academic Integrity App development　　　Jan. 2016 - Aug.2016

- Advisors: Dr. Shuang Wang and Dr. Xiaoqian Jiang
- We built an intelligent Question-Answer IOS App for Academic Integrity office of UCSD.
- It will be available on apple store soon.

Research Intern, DBMI-UCSD, San Diego, CA USA

Trends analysis in biomedical informatics area   June 2015 - Aug. 2015
- Advisors: Dr. Xiaoqian Jiang and Dr. Shuang Wang
- Our result was published on Journal of the American Medical Informatics Association.

Research Assistant, Northwest A&F University, Yangling, Shaanxi China

Joint Source-Channel Arithmetic Coding   Dec. 2013 - May 2014
- Advisors: Dr. Yong Fang
- Became familiar with arithmetic coding, and implemented the algorithm using C++.

Content Managment System for promotion of agritourism   2011-2012
- Advisors: Dr. Lvwen Huang
- College Creative Experimental Plan Project
- Designed and built a website, with relevant design and coding of the database.

Developer Intern, Burton Vocational Training Schools, Xi'an, Shaanxi China

Software development based on Android   June 2013 - July 2013
- Implemented the interface design and did part of the coding work for a 3G app for TOLO Airlines.
- Excellent intern team award

EDUCATION

The University of Oklahoma, Tulsa, OK USA

M.S., Electrical and Computer Engineering, Aug. 2014 - Aug. 2016
- Area of Study: *Machine Learning and Data Mining*
- Advisor: Dr. Samuel Cheng

Northwest A&F University, Yangling, Shaanxi China

B.S., Software Engineering, Sep. 2010 - July 2014
- Thesis Topic: *Design and Realization of Joint Source-Channel Arithmetic Coding*
- Advisor: Dr. Yong Fang

REFEREED JOURNAL PUBLICATIONS

1. D. Han, S. Wang, **C. Jiang**, X. Jiang, H. Kim, J. Sun, L. Ohno-Machado. "Trends in biomedical informatics: Automated topic analysis of JAMIA articles." *J Am Med Inform Assoc (JAMIA)*, 22:1153–1163, 2015.

2. H. Shi, **C. Jiang,** W. Dai, X. Jiang, Y. Tang, L. Ohno-Machado, S. Wang. "Secure Multi-pArty Computation Grid LOgistic REgression (SMAC-GLORE)." *BMC Medical informatics and Decision Making (BMC)*, 16(Suppl 3):89, 2016.

SUBMITTED
CONFERENCE
PUBLICATIONS

1. **Chao Jiang** Lichang Wang, Shuang Wang, Wenrui Dai, Xiaoqian Jiang, Yong Fang, Lucila Ohno-Machadoetc. "A Trustworthy Framework To Secure Shared-access to the Strong Heart Study". Submitted to *AMIA 2017* Regular Paper.

2. Xiaoqian Jiang*, **Chao Jiang***, Claudiu Farcas, Yuchen Zhang, Lucila Ohno-Machado, etc. "Count Everything: Secure Count Queries Across Big Data Centers" Submitted to *AMIA 2017* Regular Paper.

3. Chao Jiang, Xiaoqian Jiang, Shuang Wang Lucila Ohno-Machado etc. "MALTASE: a Mobile AppLication To improve patients' Access to their data Sharing preferencE" Submitted to *AMIA 2017* Poster.

4. Shuang Wang, Xiaoqian Jiang, Chao Jiang, Lucila Ohno-Machado etc. "A community effort to protect genomic data sharIng, collaboration and outsourcing" Submitted to *npj Genomic Medicine - Nature* Poster.

IN PREPARATION
PUBLICATIONS

1. Shuang Wang, Xiaoqian Jiang, Chao Jiang, Lucila Ohno-Machado etc. "A community effort to protect genomic data sharIng, collaboration and outsourcing" Submitted to *npj Genomic Medicine - Nature* Poster.

AWARDS

- College creative experimental plan project   2011-2012
- Third Scholarship, Northwest A&F University   2011-2012
- Second Scholarship, Pivot of merit student, Northwest A&F University   2012-2013

SKILLS

Languages and Scripts: C, Swift, CUDA, C++, Matlab, Python, Java, SQL
Software/Applications: Xcode, Visual Studio, Mysql, Eclipse, LaTeX
Operating Systems: Linux, Mac OS X, Windows, Android