

Haoruo Zhang

Mount Vernon, MD, USA | Email: harol.zhang@gmail.com |

LinkedIn: [linkedin.com/in/harol-zhang](https://www.linkedin.com/in/harol-zhang) | Personal Website: harolz.com

SUMMARY STATEMENT

Full-stack software engineer and information security professional, with solid background in computer and information system sciences with two-year research/work experience in research institutions and startups, practices a comprehensive set of development and DevOps tasks adhering to agile methodology and information security guidelines.

EXPERIENCE

Software Engineer Intern LINKSCIENCES LLC, MD, December 2018 – June 2019

- Working with modern development frameworks, tools, and processes in a local startup utilizing agile methodologies
- Developed a responsive Single Page Web Application (chatbot) using React/Babel/Webpack and Node/Python API
- Implemented Elasticsearch REST APIs based services as plug-in and integrated with existing applications
- Improved system throughput by decoupling services by refactoring APIs and loading balancing with Nginx
- DevOps with docker with deployment automation experience of AWS Lambda, EC2, IAM, S3, API Gateway

Research Analyst Johns Hopkins University, MD, Sep 2017 – November 2018

- Led development efforts for an NSF funded research project on computational modelling of HCI behavior
- Developed a front end HCI data collecting infrastructure utilizing HTML/CSS, JavaScript, AJAX, and PHP
- Designed and implemented simulation with ACT-R library (Python) to model user's counter-phishing strategy
- Designed algorithms to investigate co-relations between brain signals and connectivity of human neural networks
- Conference Papers published by Brain Informatics 2018, and 2018 British HCI conference

J2EE Developer AMBOW EDUCATION HOLDING LTD. (NASDAQ: AMBO), Kunshan, China, Spring 2015

- Implemented API design, development, testing with Tomcat servlet and Pivotal Spring Frameworks. (JAX-RS)
- Developed high performance object/relational persistence layer for database query service via Hibernate
- Implemented Java web application single sign on using OASIS SAML/OAuth with Spring Security
- Configured BlazeDS for asynchronous RPC communication between Flex clients and Java services.
- Configured Selenium Web Driver, TestNG, Maven tool and created Selenium automation scripts in Java
- Developed, maintained and supported Continuous Integration framework based on Jenkins

PROJECTS

Augmenting Authentication with Context-Specific Behavioral Biometrics

- Innovatively extended the definition of Behavioral Biometrics by incorporating system contextual information
- Designed and built an online authentication pipeline to predict user identity based on browsing behavior patterns
- First-authored paper published by proceedings of Hawaii International Conference on System Sciences (HICSS 52)

General-Purpose E-commercial Recommender System

- Implemented a data pipeline which monitors latest transactions and implemented a microservice design reducing coupling between components utilizing RabbitMQ
- Implemented a Hadoop based MapReduce facility using Java with multiple node clusters on AWS EC2, employing two recommender techniques (association rules and collaborative filtering) on master and worker nodes for map-reduce operations over real-world transaction datasets, to generate shopping cart recommendations

EDUCATION

Johns Hopkins University

Baltimore, MD

Master of Science, Computer and Information Systems Security, August 2016 - December 2017

Xi'an Jiaotong University

Xi'an, China

Bachelor of Engineering, Software Engineering, August 2012 - June 2016

SKILLS

Programming Languages: Java, Python, JavaScript (React, Vue), C/C++, Html/CSS, SQL

Frameworks and platforms: Log4j, RabbitMQ, Struts/Spring, Jenkins, Docker, Hadoop, Sparks