

# Yuheng (Lyle) Li

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## OBJECTIVE

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Full-time Software Engineer

## EDUCATION

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M.S., Information Technology, **Carnegie Mellon University**, Pittsburgh, PA (GPA 3.95/4.0) 2015-2016  
M.Eng., Data Mining, **University of Chinese Academy of Sciences**, China 2012-2015  
B.S., Electronic Information Science and Technology, **Jilin University**, China (GPA 3.81/4.0) 2008-2012

## TECHNICAL SKILLS

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**Language:** Java, C#, Python, SQL, C/C++, JavaScript, HTML/CSS, JSP, Shell Scripting, R, MATLAB.

**Tools:** J2EE, .NET, Eclipse, Visual Studio, awk, MapReduce, AWS(EC2, EMR...), Azure, JDBC, Oracle11g, HBase, MongoDB, MySQL, Hive, Redshift, Impala, Tomcat, Undertow, Servlet, SVN, Git, Maven, Weka, SPSS.

**Knowledge:** OOP/OOD, Algorithms, Software Architecture, Computer System, Cloud Computing, Data Mining, Machine Learning, NLP, Digital&Analog Electronics, Technology Law.

## INTERNSHIP

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**Assistant Software Engineer, Chinese Academy of Science(CAS)**, Beijing China 2014-2015

- Responsible for developing GeoVis, a GoogleEarth-like Information Analysis System;
- 1 year+ software development and scientific research with 20+ people team, 10,000+ line codes experiences.

## PROJECTS

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**Twitter Analytics Web Service**, Pittsburgh, PA 02/2016 - now

- Used Hadoop on Amazon EMR to conduct ETL on 300 millions (1T) of raw tweet messages;
- Tuned and optimized HBase and MySQL performance to serve complex read queries;
- Built a RESTful web application running on high performance non-blocking Undertow server as frontend;
- Achieved 10,000+ rps using load balancer and backend cluster under \$0.85/hour limited budgets.

**Social Networking Services with Heterogeneous Back-ends**, Pittsburgh, PA 03/2016 - 04/2016

- Developed a social networking services with MySQL, MongoDB and HBase as backend, and undertow server as frontend using Javascript and PHP running on AWS EC2, EMR, ETL using Java, MapReduce;
- Achieved functions including realtime Timeline, graph based collaborative filtering recommendation, input auto-completion and text prediction based on n-gram language model;
- Optimized databased schema for metadata, graph model and JSON for realtime information retrieval;

**Carnegie Financial Web Services for Mutual Fund Transaction**, Pittsburgh, PA 01/2016 - 02/2016

- Developed a three-tier RESTful Web application with Java J2EE, JSP, Bootstrap, Tomcat and MySQL;
- Utilized Atomic Transactions to ensure the atomicity and consistency of fund transactions in DAO design;
- Implemented MVC design pattern for authentication control, role-based access control and fund operations;
- Analyzed and measured the performance and availability of the web service with Apache JMeter.

**Twitter based Entity Linking System**, Beijing, China 02/2015 - 06/2015

- Developed an entity linking system with C#,WPF; dataset from Twitter APIs & Wikimedia; ETL by Mapreduce;
- Achieved Twitter mention disambiguation by automatically linking to corresponding Wikipedia articles;
- Proposed an improved Entity Linking algorithm, which models multiple features(user preferences, popularity etc.) of wiki entities and levitated the In-KB accuracy by 5% (compared with KAURI) to 90.17%.

**GeoVis Information Analysis System**, Beijing China 08/2014 - 05/2015

- Developed a software plugin with C#, WPF, Oracle 11g and SVN based on a GoogleEarth Like 3D globe;
- Customized 50+ data-driven usercontrols for data visualization, like track simulation, tri-state treeview etc.;
- Enhanced the data visualization effect by implementing an adaptive K-means to cluster spatial and temporal data from different altitude scales, leading to real-time data rearrangement and visualization.