

Contact

www.linkedin.com/in/pengchengnathanli (LinkedIn)

Top Skills

Java
SQL
HTML

Languages

Chinese (Native or Bilingual)
English (Full Professional)

Pengcheng(Nathan) Li

Software Engineer at Microsoft
San Jose, California

Summary

pengcheng.nathan.li@gmail.com

- Solid Background in Algorithm, Data structure, Object Oriented Programming, System Design and Computer Science Fundamentals.
- 4+ years Java using experience , 2+ years machine learning experience, 1+ years big data experience
- Java, SpringMVC/Boor/Data/Cloud, Python, R, C/C++, machine learning, distribution system (Kafka, Cassandra, Spark, Mesos, AWS, HBase, MapReduce, NoSql, GFS/HDFS, Bigtable), Multithreading
- Git/Github/Gitlab, Continuous Integration/Delivery

Experience

Microsoft
Software Engineer
July 2019 - Present
Redmond, Washington

Health Fidelity
Software Engineer
May 2018 - July 2019 (1 year 3 months)
San Mateo, CA, US

Risk Analytics team own several projects to digest patient documents, process and post-process data by using multiple data analysis techniques and platforms, present result by providing APIs and Web-Application for end users.

Designed, implemented and maintained a Nodejs project called Suspects Engine to present risk analytic results so that end users can personalize their request content by specic query elds. Using ApolloServer, GraphQL, Join-Monster to build this API, and JEST to do unit tests by having snap-shots. Wrote and maintained several Jenkins jobs to build and deploy projects. Wrote

and maintained a Kubernetes service, created ELB to keep Suspects engine as a micro service.

Designed, implemented and maintained a Python project to periodically fetch data to feed a dashboard and restore all history data. Using asynchronous approach to concurrently fetch data from multiple tenant databases which can largely decrease time and money cost, using AWS data-streaming firehose to keep history data which can be queried by AWS Athena with a low cost. Using AWS S3 as data destination to allow other applications can get data easily.

Maintained other spark and java projects in daily work. Worked closely with product team to continually develop new features and fix bugs.

International Technological University (ITU)

Software Engineer

February 2016 - May 2018 (2 years 4 months)

San Jose, United States

Green Campus backend service development

- Implemented a high performance data processing platform using Apache Kafka, Apache Cassandra, and Apache Spark to analyze U/I data.
- Developed a dashboard web app using Redis, Node.js, D3.js.
- Created a scalable cloud deployment environment using Docker, Apache Mesos.
- Implemented one-click AWS deployment using Ansible and Terraform.
- Optimized payload size using Google Protocol Buffer to improve system throughput by 30%.
- Optimized data I/O using SSD as Cassandra Cache to improve reading efficiency by 30% and improve writing efficiency by 50%.

Leshi Internet Information & Technology Corp., Beijing

Software Developer

May 2014 - October 2015 (1 year 6 months)

Beijing City, China

Personalized Music Recommendation System

- Built a recommendation system that can personalized push potential like musics to over 20 Million user
- Independently created a data cleaning pipeline, data scale is 500 Million

- Use HIVE to deal with User and Item data, generate top-similarity users and musics
- Fix the Long-Tail problem of online music items by hybriding Item-based Collaborative filtering, Userbased Collaborative filtering, Content-Based Algorithm.
- Test the recommendation system by A/B testing to make sure the satisfaction of Letv music service users.

Peking University
Software Engineer
2012 - 2013 (1 year)
Beijing City, China

- Design film Recommendation Algorithm (SlopeOne) to help users find a Maybe Like film based on their watching history and personal information.
- Change the SlopeOne algorithm to Weighted SlopeOne algorithm to decrease the root-mean-square error to 0.6506
- Won second Prize of Baidu film recommendation system contest

Education

Peking University
Master's degree, Computer Science · (2012 - 2016)

International Technological University
Master of Science - MS, Computer Engineering · (2016 - 2017)

Tianjin Polytechnic University
Bachelor of Science - BS, Computer Software Engineering · (2008 - 2012)