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## Profile

- 12+ years of full-time software development.
  - Pingan Bank: Elasticsearch plugin development, cluster operation, performance optimization and ES technical review.
  - Wanda(1+ years): Private Cloud PAAS platform early and now working on Feeds Recommendation system.
  - Autodesk(10 years): Full Stack Development.
- Focus on Elasticsearch, solid skills and rich experience on ELK
- The experience on specific domain vertical Search/Recommendation system
- Bigdata related skill, such as Spark, Hive, Presto.
- DevOps related skills, such as Docker, Kubernetes. Familiar with AWS.

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## Skills

- **Language & Framework:** Java(Spring Boot, Play, Swagger), Scala, Python, Bash/Linux, Go, C++
- **Database & middleware:** Elasticsearch(and ELK), MySQL, Redis, Couchbase
- **Bigdata:** Spark, Hive, Presto, Hbase, Zookeeper, Kafka
- **DevOps:** AWS, Docker, Kubernetes, Jenkins, Apache/Tomcat

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## Experience

- **Pingan Bank / Retailer & Technology Group / Big Data platform** *Architect* 2018/2 to present
  - Focus on Elasticsearch:
    1. Elasticsearch SQL plugin development:
      - Support query ES using standard SQL syntax
      - Extend ES SQL functions to do various via Plainness language
      - SQL validation, caching, and limit big concurrent query
    2. Elasticsearch cluster operation and performance optimization
      - The metrics for single ES cluster: 200 millions records increment with 1 TB size per day, 2+ billions records with 20 TB size total
      - Solve the unstable problems, such as: Crash, No response, Long GC, etc.
      - The big query issue: Aggregation among 2+ billions records with big cardinal number fields, the latency should be less than 10 seconds
    3. Technical review about Elasticsearch:
      - The best practice & convention for ES development, operation and maintenance
      - Technical support
  - Architect and setup Business & Audit Logging platform, based on ELK stack, and leverage Kafka, Hive and Presto, etc.
- **Wanda / Internet Technology Group / Feeds & Ads platform** *Senior Developer* 2017/5 to 2018/1  
www.ffan.com  
A personalized feeds recommendation system, similar as Twitter or JinRiTouTiao in China. It recommends the premium articles about Fashion/Tourism/Foods based on user profile and article's NLP features, which are crawled from internet.

Focusing on architecture and technical solution definition:

- As team leader, design and develop the distributed crawler system, which is based on Kafka(message broker)/Hbase(to save crawled articles)/Webmagic (the crawler library), with 50k+ premium articles increment per day and 20+ source websites(Toutiao, Weixin, UC, Sina, Xiaohongshu, etc).
- As core developer, design and implement the feeds recommendation system.
  - The offline article process pipeline (article clean & filter, NLP extracting, tagging, de-duplicate, etc)
  - The inverted index & recall system

- Design and setup web infrastructure: the Elasticsearch cluster(to store online article), the Redis cluster(the inverted index for article), ELK, Elastic job(the distributed job scheduling)

**Technical Stack:** Java/Python, Spring boot, HBase, Redis, ELK, Kafka, Thrift, Machine learning/NLP

- **Wanda / Internet Technology Group / Cloud platform Senior Developer 2016/10 to 2017/5** [www.ffan.com](http://www.ffan.com)  
Build the cloud PASS platform Web Console based on Docker and Kubernetes, make the CI & CD as a PASS service.
  1. As core developer, led a team to build a set of backend API from scratch to support CI & CD based on Kubernetes and Docker SDK. Focusing on architecture and technical solution definition, coding practice and modularizing components etc.
    - Based on Fabric8 k8s SDK, a group of APIs about service life cycle and resource management etc.
    - Customize Docker base images for various of application
  2. Coordinate the project feature scope and milestones with PM, lead the team to develop and deliver APIs in time.

**Technical Stack:** Java, Spring boot, Docker, Kubernetes, Jenkins, MySQL

- **Autodesk - Homestyler & EZHome Platform Senior Developer 2015 to 2016/10** [www.shejijia.com](http://www.shejijia.com)  
Build the O2O home platform for EZHome (one of the largest home retailers in China) by leveraging Autodesk cloud design service.
  - Design and implement the search/index service for catalog/product based on Elasticsearch. Support features: query & filter by various of criteria, full-text search, ranking by customized weights(retailer, brands), etc.  
**Technical Stack:** Java/Scala, Play Framework, Elasticsearch, AWS SQS.
  - Design and setup web infrastructure with high criteria to improve the stability and the reliability of system. Actions are: Setup service cluster with AWS ELB, Couchbase cluster setup, Elasticsearch cluster setup, AWS VPC setup.  
**Technical Stack:** AWS ELB/EC2/SQS, HAProxy, Couchbase, Elasticsearch.
  - Design and lead to build a set of backend API services(Micro-service oriented) from scratch. Focusing on architecture and technical solution definition, coding practice and modularizing components etc.  
**Technical Stack:** Java, Spring boot, Jersey, Swagger, AWS, Couchbase, MySQL
  - Design and lead a team to implement AngularJS based back office website for administrators and various message driven services for distributed computing -- model process, index update.  
**Technical Stack:** Java/Scala, Javascript, AngularJS, Bootstrap CSS, Html5, AWS S3
  - Work closely together with Ops to set up the build and deployment system for backend, writing scripts for migration or ad hoc requirements.  
**Technical Stack:** Bamboo, Python, Bash, Linux

- **Autodesk - Other 2007 to 2014**

- **2013 to 2014** Autodesk Tinkercad [www.tinkercad.com](http://www.tinkercad.com)  
A simple, browser-based 3D design/modeling and 3D printing app for all.
  - Designed and implemented the core mesh processing algorithms: imprint image on mesh surface, emboss text on mesh surface, mesh slicing, etc.
  - Implement REST APIs based on feature's requirements
- **2011 to 2013** Autodesk 123D Family app [www.123dapp.com](http://www.123dapp.com)  
A family of free online apps to design and modeling.
  - Setup the Web Infrastructure, design and implement CI & CD system.
  - Design and implement various of features from UI to modeling.
- **2007 to 2010** Autodesk Sketchbook [www.sketchbook.com](http://www.sketchbook.com)  
A desktop 2D sketch&paint tool.
  - Implement various of brush painting, image processing features.

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## Education

- 2002 to 2006: Bachelor of Huazhong Agricultural University(Computer & science)