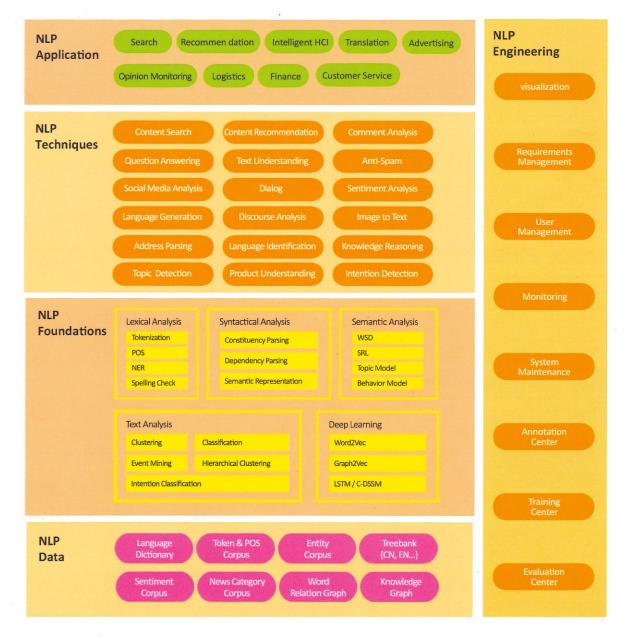
# ALINLP PLATFORM AND ITS APPLICATION

**ALIBABA MIT** 





Data play an important role in the rich international eco-system of Alibaba. All kinds Natural Language Processing (NLP) for text data are very central and critical. The NLP techniques of Alibaba cover all kinds of multilingual NLP core data, multilingual foundational algorithms (lexical, syntactical, semantic, document analysis, and deep learning), and all kinds of NLP application techniques. They are widely applied in various Alibaba eco-system's business scenarios, such as search, recommendation, advertisement, finance, logistics, customer service, and cross-border e-commerce. Currently, NLP directly related technique platforms of Alibaba include large scale multilingual NLP platform AliNLP, machine translation platform AliTranX, and intelligent customer service platform AliMe, and so on.



#### **CONTACT PERSON**

Luo Si luo.si@alibaba-inc.com



# NATURAL LANGUAGE PROCESSING (NLP) DATA SCIENTIST

#### **JOB OPPORTUNITY**

We are sincerely looking for more talents who are willing to join us and enjoy working in the innovative AI areas. With us, you will have the opportunities to work on many interesting business problems linked to hundreds of millions of customers and merchants, and open our AI solution inside and outside the eco-system of Alibaba.

#### QUALIFICATIONS

- Solid fundamentals in algorithms and mathematics; familiar with Machine Learning basics and algorithms.
- Proficient in NLP related theories and techniques, practical experience in the following areas is preferred: Human-Computer Interaction, Intelligent Query and Answering, Knowledge Graph, Text Mining, etc.
- Research and/or practical experience in applying Deep Learning (DL) techniques to NLP is a big plus.
- Proficient in at least one of the following programming languages: java, C++ or Python.
- Good teamwork spirit, and full enthusiasm for technology.

#### LOCATION

Hangzhou, Beijing

#### **INTERVIEW**

Face to face, phone or online interview.

#### **CONTACT PERSON**

Haiqing CHEN haiqing.chenhq@alibaba-inc.com

#### ALIME

### INTELLIGENCE DRIVING SERVICE INNOVATION

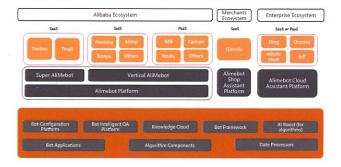




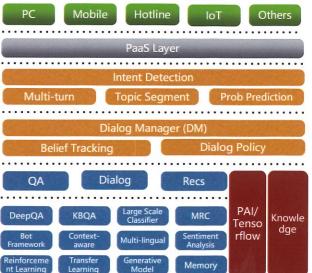
Alibaba 智能服务事业部 客户体验事业群 Intelligent Service Division

The AliMe platform products family includes the AliMebot Assistant, AliMebot Shop Assistant, and AliMebot Cloud Assistant. They are intelligent conversational assistants launched by the CCO of Alibaba Group, which can provide human-like conversational services on different platforms while also help companies to improve their service quality in conversational business scenarios. In 2017, driven by the technologies such as natural language processing, knowledge graph and deep learning, the AliMe platform has been able to energize the Alibaba ecosystem, which includes more than 50 vertical industries. They are also empowering millions of merchants and small business enterprises which are growing in the Alibaba E-commerce and Cloud ecosystem. Moreover, the AliMe platform is also providing its services all around the world by supporting English, Portuguese, Spanish, Indonesian, and Thai, etc. In the last double-11 event in China, the AliMe platform completed 120 million customer service conversations in a single day, making it the largest conversational assistant in the customer service domain. In terms of technology innovations, the AliMe team has 11 papers published in top conferences and 30 patents.

#### **ALIME PLATFORM PRODUCT MATRIX**

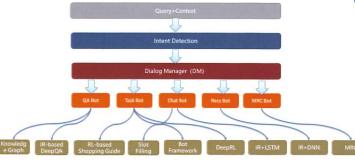


# ALIME PLATFORM TECHNICAL ARCHITECTURE



#### ALIME PLATFORM TECHNICAL ARCHITECTURE

#### AliMe Platform Technical Architecture





## NATURAL LANGUAGE PROCESSING AT ALIBABA

ALIBABA MIT

## Natural Language Processing (NLP)

NLP research has made great progress from using complex sets of human rules, statistical natural language processing techniques to deep learning nowadays.

Natural language processing is the key building block for complete/strong Al

Missions of Alibaba's NLP R&D:

- 1.Support all the demands of NLP techniques and applications in Alibaba's eco-system (new-retail, finance, logistics, entertainment etc.)
- 2.Enable Alibaba's business partners with NLP solutions.
- **3.Advance** the State-of-the-Art NLP research with colleagues from both academia and industries .

# AliNLP Platform and its Application

AliNLP:

AliNLP is a large-scale NLP technology platform for the entire Alibaba Eco-system. The AliNLP platform covers major aspects of NLP such as data collecting/processing techniques and multilingual algorithms for lexical, syntactic, semantic, discourse analysis, and distributed representation of text.

AliNLP v0.1 released Dec, 2016; AliNLP 4.0 released Aug, 2017 Used in 250+ business scenarios (Jun, 2018) with more than 500Billion+ API calls per day.

Some key characteristics:

- Utilizing behavior data instead of demanding human annotations for NLP algorithms.
- Utilizing multiple correlated tasks for improving effectiveness of individual tasks of the complex Alibaba eco-system.

#### **QUALIFICATIONS**

- MS (Ph.D. preferred) in Computer Science with the focus on NLP or Computational Linguistics.
- Strong background in implementing natural language processing and machine learning solutions.
- Substantial experience in core NLP functionality, as well as higher-level modules supporting natural language understanding, such relation extraction, sentiment analysis, named entity recognition, text classification, and structured sequence prediction.
- Experience with common NLP/machine learning frameworks such as NLTK, Stanford CoreNLP, spaCy, and TensorFlow is a plus
- Self-driven, innovative and collaborative
- Good communication and presentation ability

#### **RESPONSIBILITES**

- Explore large scale data, research and develop NLP related modules.
- Work with business unit to integrate algorithms into products.

#### LOCATION

Hangzhou, Beijing, Singapore, Seattle

#### **INTERVIEW MECHANISM**

Face to face, phone or online interview

#### **CONTACT PERSON**

Li linlin

linyan.lll@alibaba-inc.com

#### **MACHINE TRANSLATION**

Alibaba group is promoting its international stategy. Alibaba.com, Aliexpress.com, Lazada.com, Aliyun.com and Dingtalk are the main portals of the globalization business of Alibaba. Hundreds of millions of consumers and businesses are using the services on these platforms. Translation technology plays the key role in the cross-border business to translate billions of words in product titles, descriptions, search queries and conversations between tens of languages everyday, which make it easy that the users of Alibaba in different countries/areas trade.

The translation team of Alibaba develops a variety of translation solutions consisting of machine translation, crowdsourcing translation and localization, which focuses on e-commerce/social domain and produce translated texts with high quality and low cost. Alitranx — our machine translation platform is based on neural machine translation model and statistical machine translation model. With the optimization and creativity in the models, multilingual NLP technology and data mining, Alitranx ranks No.1 in multiple tasks in WMT 2018 and outperforms other competitive systems in the domains it focuses. Currently, Alitranx supports the requirement of more than 40 departments of Alibaba, and processes more than seven hundred million requests daily.

#### JOB OPPORTUNITY

The forefront machine translation and other NLP technologies are the key solution to tackle the extensive international challenges in Alibaba. Our vision is to build the-state-of-the-art multilingual infrastructure of information processing to support the cross-border business of Alibaba group. Now we are looking for the talents to bring MT/NLP/MT technology into the practical scenarios, bridging technology and business. Preferred candidates should be professional, self-motivated, optimistic and durable. Welcome to join in us and make business without language barrier.



#### QUALIFICATIONS

- 1. Master's degree of PhD with 2-year or above working experience and background in the fields related to NLP, machine translation or machine learning.
- 2. Professional skills in machine translation algorithm and knowledge about the latest progress in MT/NLP, and especially the profound understanding of neural machine translation.
- 3. Work experience in large-scale machine translation system research and development. Hands-on experience of the core MT training system and decoding system is preferred.
- 4. Enthusiasm for the cutting edge technology of NLP/ML, and willing to learn and invest the latest knowledge continuously.
- 5. Good communication skills and a strong team player.
- 6. Bilingual skill is preferred but not mandatory.

#### LOCATION

Hangzhou(China), Beijing(China), Seattle(U.S.A)

#### **INTERVIEW WAY**

Face to face, phone or video interview

#### **CONTACT PERSON**

Luo Weihua weihua.luowh@alibaba-inc.com

# R&D CENTER SINGAPORE ALIBABA MACHINE INTELLIGENCE TECHNOLOGY LABORATORY

Alibaba Machine Intelligence Technology laboratory, which has more than 500 researchers and engineers, works on creating disruptive AI technologies that could solve important problems of the society on speech processing, language processing, image/video analytics, and optimization and decision making. The R&D Center Singapore under the Machine Intelligence Technology is an international R&D team with the focus on developing cutting edge speech and language processing technologies, including speech recognition, speech synthesis, natural language processing (NLP), and machine translation.

To serve Alibaba's globalization strategy, the R&D Center Singapore is paying special attention to the technology developments related to the areas of multilingual speech and language processing. For example, we are working on speech recognition and synthesis of multiple languages, NLP technology and machine translation systems for Southeast Asian languages, and speech-to-speech applications and products between Chinese and other languages.

We are also working closely with other teams in the Machine Intelligence Technology laboratory in Hangzhou, Beijing, Seattle and Silicon Valley, sharing the same research, development and product platforms, and leveraging the existing technologies and platforms developed in the laboratory.

#### **JOB OPPORTUNITY**

We are hiring speech and language processing experts for exploring large scale data, conduct research and development, and solve real-application problems. We look forward to working with the talents together to prompt the speech and language processing technology in Alibaba and build up an advanced R&D Center in Singapore.

#### **QUALIFICATIONS**

- 1. Experience in research and developments of speech recognition, speech synthesis, NLP and machine translation
- 2. Solid programming skills in C/C++, Python, and one shell script
- 3. MS (PhD degree preferred), and 3+ years relevant working experience preferred
- 4. Self-driven, innovative and collaborative
- 5. Good communication and presentation ability

#### **RESPONSIBILITES**

- 1. Research and developments of core speech and language technologies including speech recognition, speech synthesis, NLP and machine translation
- 2. Training and test of speech and language modules with large scale data sets
- 3. Model optimization of specific business scenarios and products

#### LOCATION

Singapore

#### **INTERVIEW MECHANISM**

Face to face, phone or online interview

#### **CONTACT PERSON**

Bin MA

b.ma@alibaba-inc.com

