

# Chi Zhang

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## Contact

elecpaooa@{qq, gmail}.com

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## Skills

- Programming Languages: Python / Java / Bash
  - Machine Learning, Deep Learning, NLP
  - Ads / Search / Recommender Systems
  - Large Scale Data Processing
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## Work Experiences

### Google

2019.2 - now, Shanghai

gTech Ads - Design and implement Ads/NLP solutions for Google's global customers.

Text Ads Creatives Generation

- Leveraged large language models (LLMs) to develop a multilingual ad copy generation system for clients in the advertising industry.
- Addressed the limitations of zero-shot LLMs in controlling word count by generating data and fine-tuning PaLM to meet the requirements of ad copy generation.
- Adopted by >500 clients worldwide, drove revenue >\$10 million / year.

Search Ads Optimization

- Utilized text embedding techniques to calculate text similarity and expand keyword targeting for search advertising campaigns
- New keywords drove additional rev of \$ 8M+ / year

Comment Analysis

- Performed sentiment analysis and text classification on app store and YouTube comments for clients.
- Utilized the BERT model for automated text classification, enabling real-time monitoring of comments and providing real time warning capabilities.
- Adopted by >100 clients worldwide

### Pinduoduo

2018.1-2019.2, Shanghai

Responsible for the development of the machine learning platform for the Ads team, utilizing TensorFlow for distributed [training](#) and deployment of CTR models.

- Developed three models: LR (Logistic Regression), PNN (Product-based Neural Networks), Deep FM, deployed to the K8S cluster.
- Supported ~10B of samples and ~10B sparse feature dimensions, with daily model updates.
- Achieved a 5% ~ 10% improvement in CTR and eCPM

### Amazon

2016.10-2018.1, Beijing

Led the team's ACU (average cube per unit) /STM (sort type mix) forecasting project. Employed time series forecasting algorithms such as Gaussian Process, ARIMA, and LSTM to provide a foundation for volume forecasting across Amazon's global product lines.

## Xiaomi

2013.6-2016.10, Beijing

- Designed and implemented a recommendation system for the MIUI Reading App. Extracted user features from various data sources, including logs and databases, to build a recommender model.
- Led the development and data analysis of the MIUI advertising platform. Utilized technologies such as Zookeeper, Thrift, Kafka, and Redis to construct a high-performance, highly available, microservices-based distributed system capable of handling 6B daily requests and >200k peak QPS for advertising services.

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## Education

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### Zhejiang University / Master

2009.9-2012.3

Computer Science

### Zhejiang University / Bachelor

2005.9-2009.6

Mechantronic Engineering

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## Open Source

- <https://github.com/codescv/nescv> OpenAI Gym wrapper for NES games and implemented the Deep Q-Learning algorithm based on DeepMind's research paper to train AI agents to play various NES games.
- <https://github.com/google/gps-babel-tower> A NLP Python toolkit that supports a wide range of functionalities, including text similarity computation, text generation, text classification, sentiment analysis, and keyword extraction.
- [https://github.com/google/gps\\_building\\_blocks/tree/master/py/gps\\_building\\_blocks/cloud/workflows](https://github.com/google/gps_building_blocks/tree/master/py/gps_building_blocks/cloud/workflows) A lightweight workflow management tool based on Google Cloud Functions, primarily used for orchestrating data processing and machine learning tasks.

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## Awards

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2008 [Robocup](#) (International Robot Soccer) Small Size League 4th Place (Zhejiang University ZJUNlict)

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## 联系方式

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## 专业技能

- 编程语言 Python / Java / Bash
  - 机器学习, 自然语言处理
  - 搜索/推荐/广告系统
  - 大规模数据分析与处理
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## 工作经历

### Google

2019.2至今, 上海

gTech Ads - 为Google的广告客户设计和实现了各种关于广告和NLP的机器学习方案。

广告文案生成

- 使用LLM 为广告客户自动生成广告文案, 支持多语言
- 使用PaLM生成数据并finetune来解决LLM zero shot在控制字数方面的不足, 以适应广告文案生成的需要
- 全球>500客户使用, 带来收入超过10M / y

搜索广告优化

- 使用Text embedding计算文本相似度, 对广告主投放的搜索广告进行关键词扩展
- 新增关键词带来超过8M / y的额外收入

评论分析

- 为客户的应用商店/YouTube评论进行情感分析/文本分类
- 使用BERT模型对文本进行自动分类, 实时监控评论文本并提供预警功能
- 全球>100客户使用

### 拼多多

2018.1-2019.2, 上海

负责广告部门的机器学习平台搭建, 使用Tensorflow进行CTR模型的[分布式训练](#)和上线。

- 开发并上线LR, PNN, Deep FM三个模型, 部署至K8S集群
- 单模型支持样本数量百亿级别, 特征百亿级别, 每日更新
- CTR, eCPM 提升5% - 10%

### Amazon

2016.10-2018.1, 北京

负责团队的ACU (average cube per unit) /STM(sort type mix) 预测项目。使用Gaussian Process, ARIMA, LSTM等算法进行时间序列预测, 为Amazon全球范围内各产品线的体积预测提供基础。

### 小米

2013.6-2016.10, 北京

- MIUI阅读App推荐系统的设计和实现。从日志、数据库等多种数据来源提取用户特征, 建立模型。
- 负责MIUI广告平台的开发和数据分析。使用Zookeeper, Thrift,

Kafka, Redis等技术搭建高性能、高可用、基于微服务的分布式系统, 支撑每日60亿访问, 峰值QPS>200k的广告服务。

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## 教育背景

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浙江大学 / 工学硕士

2009.9-2012.3

计算机科学与技术

浙江大学 / 工学学士

2005.9-2009.6

机械电子工程

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## 开源项目

- <https://github.com/codescv/nescv> 一个openai的NES游戏 wrapper. 根据Deepmind的论文实现了Deep Q Learning算法, 用于训练AI玩各种NES游戏。
- <https://github.com/google/gps-babel-tower> 一个NLP Python工具包, 支持文本相似度计算, 文本生成, 文本分类, 情感分析, 关键词提取等各种功能。
- [https://github.com/google/gps\\_building\\_blocks/tree/master/py/gps\\_building\\_blocks/cloud/workflows](https://github.com/google/gps_building_blocks/tree/master/py/gps_building_blocks/cloud/workflows) Function Flow是一个轻量级的在Google Cloud Functions上实现 workflow 计算的工具, 主要用于数据处理/机器学习任务的串接。

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## 获奖经历

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2008 [Robocup](#) 世界机器人足球赛小型组 第四名 (浙江大学 ZJUNict)