刘洋

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教育背景

香港中文大学（深圳） 深圳
工学学士 2016 年 9 月 - 2020 年 5 月

- 专业：**计算机科学与技术**
- 课程：数据结构与算法，数据库，操作系统，云计算，分布式与并行计算，机器学习基础等

纽约大学 New York City
理学硕士（未入学） 2020 年 9 月 - 2022 年 2 月

- 项目：**M.S. in Computing, Entrepreneurship and Innovation**

实习经历

脉塔科技 中国上海
研发实习生 2019 年 5 月 - 2019 年 8 月

- AutoCL 项目：参与研发一款汽车评测集成软件：编写爬虫，从各大汽车网站上爬取数据，并建立后台管理系统；应用 NLP 相关的分词、分析等工具，对数据进行整合与呈现。
- FixPDQ：参与开发一款团队效率工具，工作包括数据库设计与基于 Django 的后端 RESTful API 开发。

沃尔玛中国 中国深圳
Walmart eCommerce 项目实习 2018 年 6 月 - 2018 年 8 月

- 与不同背景的同学组成项目组，寻找技术方案以提高沃尔玛 × 京东到家服务的拣货效率，使得整个流程能够满足地区日订单 1000+ 与每单 8 分钟拣货的要求。
- 提出了基于订单分割与传送带的拣货流程方案，开发了对应的可视化程序，并直接汇报给电商部门 VP.

项目经历

LGU · Life
联合创始人 2019 年 7 月 - 至今

- 成立创业团队，并主导开发校内社交平台，负责主要技术工作。目前团队已发展至 12 人。
- 平台目前提供论坛、博客、二手市场以及校内工具服务，已有注册用户 2700+ 人。可访问https://www.lgulife.com.
- 该项目仍在持续开发。

医疗大数据项目 深圳大数据研究院
兼职研究员 2018 年 11 月 - 2019 年 3 月

- 与深圳罗湖医院合作的病历 NLP 分析项目，负责文献综述、数据处理、代码编写等研究工作。

自我评价

- 掌握 Linux 环境与 Git 工作流；擅长 Python 语言；熟悉 C/C++ 开发；能使用或快速学习常用库与框架。
- 热爱编程与技术相关事物，希望为开源与自由软件做贡献，见个人 GitHub 主页。
- 善于团队合作，并具有一定领导力。曾任大学科幻协会创始人与会长。
- 英语流利，托福 104。

Liu Yang

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Education Background

The Chinese University of Hong Kong, Shenzhen — Shenzhen, China
Bachelor of Engineering — Sep. 2016 - May. 2020

- Major: **Computer Science and Engineering**
- Core Curriculum: data structure, database system, operating system, computer architecture, programming methodology, programming paradigms, design and analysis of algorithm, software engineering, cloud computing, distributed and parallel computing, networks, fundamentals of artificial intelligence, multimedia systems, digital logic systems, discrete mathematics, optimization, probability and statistical inference, linear algebra, calculus.

New York University — NYC, U.S.
Master of Science — Sep. 2020 - Feb. 2022

- Program: **Computing, Entrepreneurship and Innovation**

Work Experience

MetaType Inc. — Shanghai, China
Research & Development Intern — May 2019 - August 2019

- Web application development mainly using Python Django framework.
- Help build a search engine for cars which automatically crawl relative content (car information, articles & reviews) from the Internet, and generate new content on the basis of the corpus. In this project, I helped write the web crawler, build a backend management system, and do some NLP research groundwork on text generation, including bidirectional LSTM model and attention mechanism.
- Develop an intelligent task management system named FixPDQ, which aims to improve the working efficiency of big and remote teams. I design the basic data structure and models as the bedrock of the system, implement task visualization interface and a chatbot for passing message and setting business triggers.
- Configure and deploy product environment on Linux server using virtualization tools such as Docker and Python virtual environment.

Walmart Inc. — Shenzhen, China
Software Development Project Team, Walmart eCommerce — June 2018 - August 2018

- Team up with several students of different academic backgrounds, to provide technical solution for promoting the efficiency and reducing cost of Walmart eCommerce O2O picking procedure.
- In order to cope with the increasing business scale and ensure the goods to be picked within 8 minutes, we propose two solutions: *crowd-sourcing* (like Uber) and *picking zone*.
- Finally, our team writes a comprehensive proposal for the *picking zone* solution and develop a viable web application to demonstrate it.

Selected Projects

LGU Life — Long Gu Information Technology
Co-founder & CTO — July 2019 - Now

- Establish an Internet startup and lead the development team to build a web platform. The program includes the information platform, blog and social media for university students and staff.
- Direct the engineering work including requirement engineering, system modeling, software development and evolution. See `https://www.lgulife.com`.
- LGUůLife has possessed over two thousands users, and proposes to expand to other universities in China.

Healthcare NLP Project — Shenzhen Research Institute of Big Data
Part-time Research — November 2018 - March 2019

- Develop machine learning and deep learning NLP algorithms to analyze the electronic medical records from the Shenzhen Luohu hospital.
- Do literature review and practical coding work. Combine rule-based, statistical learning (conditional random field) and deep learning (Bi-LSTM) methods together, to recognize the named entity (person name, symptom, examination, etc.) in medical corpus.

Cloud-based Network Intrusions Detecting System
CSC4160 Cloud Computing November 2019 - December 2019

- Build a real-time network analysis system, which takes the Nginx request logs of a web application as input, and determines whether the request is an intrusion or attack.
- Utilize and compare several machine learning algorithms for classification, including KNN, support vector machine and neural network.
- Build a distributed back-end system using AWS EC2 with MongoDB database and Redis cache to achieve high throughput and availability, and a frontend webpage developed in Vue.js and ECharts displaying the result of real-time traffic analysis.

Film Recommendation System Based on an Improved Latent Factor Model
EIE3280 Network: Technology, Economics and Society November 2019 - December 2019

- Modify the popular collaborative filtering algorithm for recommendation system: apply the domain-aware matrix factorization to solve the sparse matrix problem.
- Instead of manually labelling the group domains, we utilize dimension reduction and unsupervised clustering algorithms such as SVD and K-Means to get certain performance improvement.
- Collect data from Kaggle Netflix open dataset and develop web crawler to obtain film information from IMDb.

Professional Skills

- **Mathematics Foundation**: calculus, linear algebra, optimization, probability, statistics and game theory.
- **Programming Language**: proficient in Python, C and C++. Familiar with Java and JavaScript.
- **Software Engineering**: working with Linux server and Git version control tool. Requirement engineering and architecture design in UML.
- **Programming Framework**: NumPy, TensorFlow, PyTorch, Scikit-learn, Matplotlib (scientific computing and machine learning); Django, Scrapy, Nginx (web application); Hadoop (distributed system); MPI, OpenMP, POSIX Threads (parallel computing).

Activities

Singularity Science Fiction Society
Co-founder & President October 2017 - November 2019

- Organize and establish a science fiction society on campus.
- Owns over 100 members and holds a number of sci-fi events with other relevant organizations.

Self Assessment

- A hard-working coder. See my GitHub profile page `https://github.com/L-kcirtaP`.
- Excellent ability and motivation for self-learning and problem solving.
- Open source and free software enthusiast. Aim to participate in open source projects and build better software.