

# 赵开延

澳门大学

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## 个人特点

- 研究兴趣: 图神经网络, 强化学习等, 也乐于接受新的挑战。
- 基础扎实: 系统学习过深度学习相关课程, 并在硕士阶段一直担任国家重点实验室研究助理, 全流程参与多篇 CCF-A 类等论文的科研过程。
- 代码能力强: 拥有多年实际软件工程师经验, 具备全栈 Web 开发经验, 负责开发的项目被公开发布, 并接受各类领导参观视察。

## 教育背景

### 澳门大学计算机科学硕士

澳门, 中国

Top 201-250 in the world (THE ranking 2023)

09.2021 - 现在

- 智慧城市物联网国家重点实验室智慧交通组研究助理
- GPA: 3.43/4
- **相关课程:** 计算机视觉与模式识别、自然语言处理、离散系统仿真、人工智能原理、大数据处理与分析、计算机科学学术研讨会等

### 华中农业大学计算机科学学士

武汉, 中国

Top 42 in China (ARWU ranking 2022), 211, 双一流

09.2016 - 06.2020

- 优秀毕业生
- GPA: 3.34/4.0 (**Top20%**)
- 证书: 华为认证 HCIA-Big Data

## 研究/项目经历

### LIBKDV - 一个用于地理空间分析的通用核密度可视化库

澳门, 中国

澳门大学

11.2021 - 02.2022

- **Publications:** Tsz Nam Chan, Pak Lon Ip, **Kaiyan Zhao**, Leong Hou U, Byron Choi, Jianliang Xu. LIBKDV: A Versatile Kernel Density Visualization Library for Geospatial Analytics. Proceedings of the VLDB Endowment (PVLDB), 2022.
- 开发了一个通用的编程库 (LIBKDV), 用于核密度可视化 (KDV), 以克服高分辨率大小和大规模数据集 (例如 100 万数据点) 的限制, 支持不同类型的基于 KDV 的地理空间分析
- LIBKDV 可在 GitHub 获取: [GitHub\(https://github.com/libkdv/libkdv\)](https://github.com/libkdv/libkdv)
- **技术技能:** Python with Pandas, keplergl, C++, Nodejs.

### 澳门大学智能交通平台的开发

澳门, 中国

澳门大学

10.2021 - 现在

- 开发了一个智能交通云平台, 集成多个系统, 创建了一个完整的系统集成平台
- 进行汽车自动驾驶数据研究, 并在系统平台上实现智能避障和车辆数据的显示/控制
- 将多个平台服务集成到服务器显示页面上, 并建立内部网络穿透以传输外部公交数据, 以实现更高效、更安全的交通数据展示
- **技术技能:** Python, linux, ros, rivz, django web.

## 工作经历

### 武汉金瑞特技术股份有限公司

武汉, 中国

Java 软件开发

05.2019 - 09.2019

- 参与河长治信息管理系统开发, 负责开发河长巡河管理模块的部分功能, 如巡河轨迹记录等。
- 参与系统需求分解和遗留项目文档整理, 完成旧系统 bug 修复和数据迁移。
- 参与河长治信息管理系统的 app 测试和部署工作, 负责开发和优化追踪功能算法, 每周刷新数据集, 并解决应用程序变更请求和先前版本问题。
- 技术技能:** Python with PyTorch, NumPy, Matplotlib, Pandas, Scikit-learn, C++, Ubuntu Linux, Linux tools, Apt, Scripting, Git.

### 烽火通信技术有限公司

武汉, 中国

软件开发工程师

07.2020 - 05.2021

- 在 OTN 光传送网控制平台层面使用 C 语言开发部分功能, 包括日志输出功能和监听各个端口等工作。
- 排查可能出现的信号问题, 解决控制平面丢包等问题。
- 为部门设计门户网站并创建测试计划, 全面测试产品功能, 搭建设置测试环境并执行测试用例, 参与产品线代码维护。
- 技术技能:** Java web, C++, Ubuntu Linux, Linux tools, Apt, Scripting, Git.

## 获奖经历

2020	校级, 优秀毕业生	中国
2019	校级, 2018-2019 优秀学生干部	中国
2017	校级, 2016-2017 三好学生	中国
2018	中南赛区二等奖, 第十二届中国大学生计算机设计大赛	中国
2018	校级二等奖, 2018 年华中农业大学生物信息设计与技能大赛	中国
2017	校级二等奖, 2018 年华中农业大学计算机设计大赛	中国

## 语言情况

**English** IELTS 6.5(6) Duolingo 110 Cet-6 431

References available upon request.

# Kaiyan ZHAO (Phoniex)

Universality of Macau

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## Personal Profile

- Research interests: graph neural networks, reinforcement learning, and also willing to take on new challenges.
- Solid foundation: I have systematically studied deep learning related courses and worked as a research assistant in a national key laboratory throughout my master's degree, fully participating in the research process of multiple papers such as CCF-A.
- Strong coding skills: With years of practical experience as a software engineer, I have full-stack web development experience and have developed projects that have been publicly released and visited by various leaders for inspection.

## Education

### MSc. in Computer Science. University of Macau

Macau, China

Top 201-250 in the world (THE ranking 2023)

Sept 2021 - Current

- Currently working as a Research Assistant in the State Key Laboratory of IoT for Smart City, the only smart city State Key Laboratory in China.
- GPA: 3.43/4
- **Relevant coursework:** Computer Vision and Pattern Recognition, Natural Language Processing, Discrete System Simulation, Artificial Intelligence Principles, Big Data Processing and Analysis, Computer Science Academic Seminar.

### Bachelor. in Computer Science. Huazhong Agricultural University

Wuhan, China

Top 42 in China (ARWU ranking 2022) Project 211 University

Sept 2016 - June 2020

- Graduated with Distinction
- GPA: 3.34/4 (Top20% )
- Certification: Huawei Certification HCIA-Big Data

## Research / Projects

### LIBKDV - A Versatile Kernel Density Visualization Library for Geospatial Analytics

Macau, China

University of Macau

Nov 2021 - Feb 2022

- **Publications:** Tsz Nam Chan, Pak Lon Ip, **Kaiyan Zhao**, Leong Hou U, Byron Choi, Jianliang Xu. LIBKDV: A Versatile Kernel Density Visualization Library for Geospatial Analytics. Proceedings of the VLDB Endowment (PVLDB), 2022.
- Developed the first versatile programming library (LIBKDV) for Kernel Density Visualization (KDV) to overcome high resolution size and large-scale datasets (e.g., one million data points) for supporting different types of KDV-based geospatial analytics.
- LIBKDV is available on GitHub: [GitHub\(https://github.com/libkdv/libkdv\)](https://github.com/libkdv/libkdv)
- **Technical Skills:** Python with Pandas, keplergl, C++, Nodejs.

### Development of Intelligent Transportation Platform at the University of Macau

Macau, China

University of Macau

Oct 2021 - Current

- Developed an intelligent transportation cloud platform and integrated multiple systems to create a complete system integration platform.
- Conducting research on automatic driving data of cars, and implementing intelligent obstacle avoidance and display/control of car data on the system platform.
- Integrated multiple platform services onto a server display page and established internal network penetration to transmit external bus data for more efficient and safer transportation.
- **Technical Skills:** Python, linux, ros, rivz, django web.

## Work Experience

### Wuhan Jinrute Software Co.,Ltd

Wuhan, China

Software Engineer

May 2019 - Sept 2019

- Participated in the development of the River Chief Information Management System, responsible for developing some of the functions of the river chief patrol management module, such as river patrol track recording, etc.
- Participated in system requirement decomposition and legacy project document management, completed old system bug fixing and data migration.
- Participated in the testing and deployment of the River Chief Information Management System app, responsible for developing and optimizing tracking function algorithms, refreshing the dataset weekly, and resolving application change requests and previous version issues.
- **Technical Skills:** Python with PyTorch, NumPy, Matplotlib, Pandas, Scikit-learn, C++, Ubuntu Linux, Linux tools, Apt, Scripting, Git.

- Developed some functions using C language at the OTN optical transmission network control platform level, including log output and port monitoring.
- Investigated possible signal problems and resolved control plane packet loss issues.
- Designed a departmental portal website and created a testing plan, comprehensively tested product functions, set up and executed test cases in a testing environment, and participated in product line code maintenance.
- **Technical Skills:** Java web,C++, Ubuntu Linux, Linux tools, Apt, Scripting, Git.

## Skills

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**Programming** Python (Pandas, PyTorch, NumPy, Scikit-learn. etc.),Java,PHP, C/C++, HTML/CSS, JavaScript, SQL.

**Miscellaneous** Linux, Shell (Bash/Zsh),  $\LaTeX$ (Overleaf/R Markdown), Tableau, Microsoft Office, Firebase, Git.

**Soft Skills** Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation.

## Achievements

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2020	<b>University level</b> , Outstanding Graduates	China
2019	<b>University level</b> , 2018-2019 Outstanding Student Cadre	China
2017	<b>University level</b> , 2016-2017 Merit Student	China
2018	<b>Third Prize</b> , The 12th Chinese College Students Computer Design Competition	China
2018	<b>Second Prize</b> , 2018 Huazhong Agricultural University Information Design and Skills Contest	China
2017	<b>Second Prize</b> , 2018 Huazhong Agricultural University Computer Design Competition	China

## Interests

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**Soccer** I was captain of the Institute football team in college

**Technical Writing** I write descriptive blogs about Linux some of them are on my GitHub

**Music** I am good at playing erhu(a traditional Chinese musical instrument)(Grade 10 Erhu Certificate—Amateur Level)

## Languages

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**English** IELTS 6.5(6) Duolingo 110 Cet-6 431

**Chinese** Native proficiency

**References available upon request.**