

# Zhengyu Chen

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<http://zinrulcre.vip/>

## EDUCATION

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|---|---------------------|
| <b>The University of Melbourne</b>                      | Jul 2018 - Dec 2019 |
| Information Technology Master - Artificial Intelligence |                     |
| <b>East China Normal University</b>                     | Jul 2013 - Jun 2017 |
| Software Engineering Bachelor                           |                     |

## PROFESSIONAL EXPERIENCE

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| <b>Tencent</b>   | Jan 2020 - Dec 2021 |
| Backend Engineer - QQ Speed Mobile, Timi Studios   |                     |
| <ul style="list-style-type: none"><li>Responsible for building a monitoring system based on Prometheus and Grafana; designing the process of pushing data to the Pushgateway cluster in the sub-thread; referring to Consul to optimize the service discovery and sidecar program; participating in the implementation of the stateful service migration plan.</li><li>Collect the monitoring data of the production environment, perform variable correlation analysis, filter the variables related to the number of online users, use RNN and LSTM to train the time series model, predict the number of future online users, and apply it to the auto scaling on the cloud.</li><li>Analysis requirements and develop stable code in game development; Implement the guild rental agency system; Design the scheme that dynamically adjusts the AI allocation ratio according to the use situation; Optimize the matching algorithm based on ELO and multiple matching pools.</li><li>Share technology regularly, topics including heuristic search and reinforcement learning, Python virtual machine and coroutine implementation, Kafka source code, etc.</li></ul> |                     |
| <b>Virtuos</b>   | Aug 2017 - Jun 2018 |
| C++ Engineer - Final Fantasy 12  |                     |
| <ul style="list-style-type: none"><li>Using Adapter Pattern to encapsulate DirectX12 and NVN Graphic Interface</li><li>Optimize Map Resource Loading Mechanism, and implement the pause mechanism in game on Nintendo Switch</li></ul>   |                     |

## PROJECT EXPERIENCE

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| <b>LeetCode Archiver</b>  | Nov 2018 - Sep 2019 |
| Personal Open Source Project  |                     |
| <ul style="list-style-type: none"><li>Crawl topic information and personal submissions based on Scrapy framework and Requests library; use MongoDB to store data; Use Pyplot to generate statistical charts and markdown file</li><li>Use Postman to parse HTTP requests to obtain csrf token and maintain session</li><li>Get 200+ stars on Github</li></ul>     |                     |
| <b>Australian Snake Breed Identification</b>  | Dec 2018 - Aug 2019 |
| Graduation design   |                     |
| <ul style="list-style-type: none"><li>Implement target detection and image recognition models based on YOLOv3. Using multiple transfer learning models and ensemble learning to improve the accuracy to 76.29%</li><li>Use Swift and CoreML to develop iOS applications to deploy models; Use DispatchQueue to implement asynchronous image acquisition</li></ul> |                     |

## SKILLS LIST

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- Basic: Proficient in CS basic skills, including data structure and algorithm, computer network, operating system, database.
- Language: C++, Java > Python3 > Golang
- Tools: Familiar with GDB and coredump debugging and Valgrind memory leak checking methods on Linux. Familiar with Clang and CMake-based project organization.
- Cooperation: Strong skilled in both teamwork and independent contribution. Able to communicate in Chinese/English fluently.
- Website: <http://zinrulcre.vip/>