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zj-lan.github.io



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SKILLS

C/C++

Java

Python

Unity

Unreal Engine 4

C#

Linux

Database

SQL

Git

Software Design

Version Control

Data Analysis

Machine Learning

Web Applications

LANGUAGES

English

Full Professional Proficiency

Chinese

Native or Bilingual Proficiency

INTERESTS

Video Games

Electronics

Basketball

Snowboarding

Music

Zhijie Lan

Software Engineer

Passionate Software Developer with 3+ years of experience in building Windows and Linux applications for the *Air Traffic Control Automation System* with C++ / Java / Qt and more.

WORK EXPERIENCE

Software Engineer

Wisesoft Co., Ltd.

09/2015 - 06/2019

Chengdu, China

Wisesoft, listed on the SZSE (Stock Code 002253), is a leading tech company providing proprietary solutions in China's air traffic markets.

Achievements/Tasks

- As a core programmer of the department, independently developed and maintained the core software of the *Air Traffic Control Automation System* (worth about **\$3 million USD**).
- Designed, developed, debugged, and tested the **C++/Java/Qt** software deployed in **10+ airports** across China.
- Installed and configured the operating system (**Windows/Linux**) and **database** (Oracle) for the LAN system (**10+ servers** and **50+ clients**) of the software.
- Handled more than hundreds of client needs, new features, and bugs of the software.
- Awarded **The Best Employee** of the Year 2016 (10 out of 500 employees), 01/2017.

ACADEMIC AND PERSONAL PROJECTS

Unity Game Development (2020 - Present)

- C# / Unity**
- Developed a 2D platform game, a third-person adventure game, and a first-person shooting game.
- All game demos can be played online (find my ePortfolio link on the left).

Marine Mammal Sound Classification (09/2020 - Present)

- Python / Machine Learning**
- Fetches audio data, and built metadata for all audio files for machine learning and deep learning.
- Used **Python**, **Pandas**, **Librosa**, and **Scikit-Learn** in **Jupyter Notebook** to build machine learning models.
- Explored and learned different algorithms of machine learning and deep learning, and used **Keras** and **Tensorflow** to implement deep learning methods.

PreZoom, Presentation Software with Animation (09/2020 - 12/2020)

- Java / Swing / JUnit / GUI**
- Developed a presentation application based on **Java Swing GUI** that combines features of PowerPoint, Prezi, and Keynote. (**The Best Software Award**, 1 out of 12 groups)
- Designed the whole structure of the software, wrote **JUnit** automated tests for the program, and finished most of the documentation.
- As the **team leader**, divided programming tasks and assigned jobs to teammates, and managed the **git** repository and version control.

Vehicle License Plate Recognition (05/2020 - 08/2020)

- C++ / OpenCV / Machine Vision**
- Developed an image processing program that can extract characters of vehicle license plates from images.
- Used **OpenCV** to preprocess original images to locate and extract plate images.
- Used a pre-trained **KNN** model to recognize characters from plate images.

EDUCATION

Master of Applied Science in Computer Engineering

Memorial University of Newfoundland

09/2019 - Present

St. John's, Canada

Achievements

- GPA: 3.88/4.0

Bachelor of Engineering in Communication Engineering

Chengdu University of Information Technology

09/2011 - 07/2015

Chengdu, China

Achievements

- GPA: 3.1/4.0
- Second Grade Scholarship, 10/2013
- Outstanding Leader of Student Union
- Third Grade Scholarship, 11/2012