Zhijie Lan
Software Engineer

I am a 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. In addition, I am also a video game enthusiast who keeps learning game development skills and aspiring to get into the game industry.

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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

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 front-end software of the *Air Traffic Control Automation System* (worth about **$3 million** USD).
- Designed and developed **C++/Java/Qt** software deployed in **10+ airports** across China, which can dynamically **parse radar** data of thousands of flights and **visualize** speed vectors,flight routes, hazard warnings, topographic maps, etc.
- 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**
- Fetched 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 preprocessing 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 Telecommunications engineering
Chengdu University of Information Technology

09/2011 - 07/2015   *Chengdu, China*
Achievements
- GPA: 3.1/4.0   - Outstanding Leader of Student Union