Hongyun Du

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CAREER OBJECTIVE

Seeking a 2020 summer internship position as a programmer or software engineer.

EDUCATION

Bachelor of Science in Computer Science — Expected Dec 2020
The University of Texas at Dallas, Richardson, TX — **Cumulative GPA: 3.6/4**

SKILLS

Programming Languages: Java, C, C++, C#, Python, MIPS, Octave, JavaScript
Operating Systems: Windows, Linux – Bash
Databases: Microsoft Access, Microsoft SQL Server
Other Skills\Technologies: Object-oriented Design, Dynamic Programming, Junit5, Web Application Design, Machine Learning Supervised Learning, Git, Neural Network, Image Processing, Unity3D

PROJECTS

Chillennium Game Jam Competition Project with C#, Unity, Microsoft Visual Studio

- Designed and implemented a 2D tower defense game within 48 hours.
- Implemented objects collision, objects searching, object switching, attacking algorithm, and path finding algorithm.

Full Function of Programmer Calculator with Java, Eclipse

- The goal was to build a simple long equation calculator, but we implemented a calculator who's exterior and function are exactly as same as the calculator of Windows 10.
- Implemented the algorithm converting numbers between different radix (included negative numbers).
- Implemented the long equation calculation.

Shortest Airline path scheduling program with Java, Eclipse

- Implemented this program with Dijkstra's algorithm.
- Applied cost first and time first two different preference path scheduling function within one function.

Campus Online News website with HTML, Microsoft SQL Server

- Designed and implemented static news website, which can record users' activities with Microsoft SQL server.

Coursera Machine Learning Projects with Octave

- Implemented classification learning algorithms with multiple features.
- Learned how to adjust variables to prevent overfitting or underfitting.
- Produced a neural network algorithm can identify hand written Arabic numerals with about 97 % of accuracy.

Single Processor Simulator with Assembly Language with Java, Linux

- Designed and implemented an assembly language simulator with both clock interrupt and user interrupt.

Multi-Threading Banking services simulator with Java, Linux

- Implemented multi threads in Java to simulate the banking services.
- Avoided deadlock and all synchronized methods are mutually exclusive between others with semaphore class.

Red Black Tree with Java, Eclipse

- Implemented a fully functional red black tree with time complexity of O(log n)

PROFESSIONAL EXPERIENCE

Course Instructor – CS Outreach at The University of Texas at Dallas, Texas — **Oct. 2019 - Nov. 2019**

- Planning teaching outline and scheduling teaching progress for the team and teaching Alice courses to twelve 7th grade students, focusing on developing logical thinking and critical thinking ability.