Honglin Cao

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HIGHLIGHTS of QUALIFICATION:

- Over one year of software development experience in various companies, on different platforms and architecture
- Strong software development and programming skills and project management abilities, with a comprehensive understanding of data structure, modern information system, computer hardware and system administrators
- Proficiency in languages including Python, C++, C#, Java, JavaScript, PHP and bash; Industry-standard software like Unity3D, Unreal, Fusion 360, MS Access, GitLab, Jenkins; Operating system like Windows and Linux with extensive development experiences
- Strong adaptive ability on learning learns new technology and knowledges, with a result-oriented problem-solving skills plus a continuous improvement mindset
- Passionate to learn new knowledge and work on all relevant subjects including but not limited to video games, 3D graphics, database system, QA automation and system administrator with excellent presentation and communication skills and the ability to work both independently and collaboratively

WORKING EXPERIENCE:

Junior Software Developer Athena Education, Richmond Hill, Canada   *2020 March – 2020 Sept*

- Determined the project requirements, application scope, KPIs and evaluation criteria and translated them into digital measurement plans with the executive team and diverse stakeholders for improving websites design
- Determined key performance metrics and managing authority access for Website/Application through Java HTML, CSS, and PHP when liaised with key stakeholders for UI design, for easier website management
- Defined and summarized baselines for knowledge transfer, continuous improvements, and training session for relevant personnel to maintain and update information on website

Software Engineering for R&D - Distributed Database Huawei Technologies, Markham   *2022 Jan – 2022 Sept*

- Worked closely with the developers to formulate and write numerous automated tests on platforms like GitLab and Jenkins across multiple ARM and X86_64 servers, maintained these tests while adapting them to suit the rapid development of the database system
- Maintained and modified multiple development servers to suit developers' needs, while troubleshooting countless issues ranging from broken network connections due to faulty link negotiation settings to low TPCC performance caused by unoptimized sysctl attribute
- Quantified database system performance regression with tools like perf, gstack, top, vmstat, iostat, sar, CPU flamegraph and jTPCC; While working on automates them to a one-click program which could be utilized by any developers and the automated tests on GitLab, Jenkins and Linux Cronjob to be able to experiment with any kind of configuration of OpenGauss
- Documented findings from experiments including but not limited to different database versions, configurations, sysctl values and compiled them into reports for developers and team leaders to read; Guided new hires with the knowledge they needed to work ranging from workplace culture to technical information, and did skill transfer through well-written Wiki on every step needed to be done for any tasks

EDUCATION & PROFESSIONAL DEVELOPMENT:

- **Candidate for Bachelor of Computer Science, Honours, Co-operative Program**   *2020 Sept – Present*
  - Recipient of the President's Scholarship of Distinction
  - A major average of over 95%

RELEVENT PROJECT:

Gone coViral   (Java Project, As Project Manager and Programmer)   *2021 May*

An educational stress-relief game for hackathon TOHacks 2021

- Managed versioning and collaboration through GitHub

- Designed and programmed the game using only java Applet, with extensive Object-Oriented Programming concepts
- Educated group members with the design, programming detail so an introduction video could be produced.

Conway's Game of Life   (Independent C++ Project)   *2021 June*

An CS246 course assignment project

- Improved user experience by creating a GUI
- Implemented several OOP design pattern such as Decorator and Observer to compact the code and add readability

The Settlers of Catan   (C++ project, As Project Manager and Programmer)   *2021 June*

An CS246 course final project

- Liaised with group members to finalize the design of the game, then decided a viable plan of attack for everyone and served as an adviser of programming throughout the project
- Designed the structure of the program with extensive use of OOP concepts and design patterns, modelled the structure into a UML diagram and educated group members on the feasibility of it
- Programmed the major framework of the program in collaboration with group member remotely using GitHub and served as the debugger when the program was finished
- Managed versioning and collaboration through GitHub