Kuanghua Qiao

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June 19, 2018

Katie Bieber
Bioware
Edmonton, Alberta, Canada

Re: Possible intern opportunity
Greetings Katie：

I would like to humbly request an intern position at Bioware. Throughout my mixture of hardware and software designing experience, I have always found software being more engaging. And among all the fields in software, nothing excites me more than creating games. As such I recently made up my mind to transition into the gaming industry. Since I have always wanted to make a game under the title Mass Effect, Bioware is the place to go.

Skill-wise I have proficiency with various programming languages including C, C#, Java, and Python. I have also been exposed to several other languages such as Javascript and C++ during some of the tasks in my projects. I have also designed a board game within a group of four for a class project. Though I will have to be honest the programming in the hardware-related field is rather different from that of the gaming field. But with my training combined with my research capability, I will be able to get up to speed in a very short time.

Aside, from the technical aspect, I would also like to bring some cool ideas about future possibilities of Mass Effect. We can further discuss these ideas in an interview if you would like to. Needless to say, it will be an honor to be able to work at Bioware, and I hope I can be of great value to Bioware as well. If you are interested please send me an email and we can arrange a phone call, and I'm willing to relocate to wherever job needs me.

Yours sincerely,

Kuanghua Qiao

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Objective

· I am an electrical engineering graduate from York University. I strive for excellence in my work and enjoy solving new and interesting technical problems. Presently, I am looking for an entry-level job.

Education

· B.Eng. Spec. Hons. Electrical Engineering | Feb 2019 | York University

Skills and qualifications

SOFTWARE LANGUAGES AND TOOLS
· *Java, Javascript, C, C#, Python, MIPS assembly,Bash Shell script, MATLAB, LabView*
· *Linux, Git, Sublime Text, Eclipse, Visual Studio Code, .NET Core, PyQt GUI, Solidworks, Unity*

Work Experiences

RESEARCH ASSISTANT | BIOSA LAB YORK UNIVERSITY | 2018-PRESENT
· **Project 1: Age-Related Macular Degeneration Diagnostic Tool: Hardware and Software Development.**
  ➢ Brought up a system for capturing small hand movement gestures within a series of research experiments, to recognize two distinct hand gestures made in real-time with an accuracy of 82%.
  ➢ Programed the Adafruit 32u4 feather BLE board to enable the device being used wirelessly.
  ➢ Developed a GUI with C# and .NET core framework that enables gesture recognition and device debugging.
  ➢ Research paper accepted by 61st IEEE International Midwest Symposium on Circuits and Systems.

· **Project 2: A Non-Invasive Wireless Respiratory Monitoring System for Animals.**
  ➢ Designed a biomedical device to noninvasively monitor a dog's breath rate with 99.7% accuracy using a piece of conductive fabric and wireless technology to remotely monitor breath rate in an undisturbed environment.
  ➢ Programed the ESP32 SoC to enable the device being used wirelessly.
  ➢ Developed a GUI with MATLAB that analyze and log the signal.
  ➢ The research was showcased in Lassonde Undergraduate Research Conference 2018

· **Project 3: Core-CBCM CMOS Capacitive Sensors for Life Science Applications.**

- ➢ Built out a test platform on top of a custom-designed CMOS integrated circuit to characterize the behavior of a capacitive biosensor.
- ➢ Designed, ordered, assembled a PCB to power the custom CMOS and interface it with our embedded system.
- ➢ Programmed the SAM3X8E microcontroller to generate input and output which facilitated the analysis and characterization of the target sensor.
- ➢ Developed a GUI with Python and PyQt that analyze and log the data from the target sensor.

Volunteer Experiences

ELECTRICAL SUBSYSTEM DESIGNER | YORK UNIVERSITY SPACE ENGINEERING NANOSATELLITE DEMONSTRATION GROUP | 2015-2016
- · Conducted battery qualification test which identified a selection of space-qualified batteries from numerous products on the market.

ELECTRICAL TEAM LEAD | LASSAT CSDC YORKU TEAM (CANADIAN SATELLITE DESIGN CHALLENGE) | 2016-PRESENT
  https://github.com/okyx10a/CSDC-electrical/tree/Working-branch
- · Designed and implemented the solar panels system which enabled the satellite to sustain itself in orbit, which generates 6W of power per orbit.
- · Programmed the power system to monitor live behavior feeds and enable power system fail-safes during a live deployment.
- · Prepared education materials that document current progress and future plans and for new members.

Achievements

- · The Gordon and Agnes (Twambley) Brash Award in Eng York   Nov 2015, Nov 2014
- · University Continuing Student Scholarship   Aug 2014