Statement of Research Interest

My name is Kuanghua Qiao. I graduated from York University in June,2019, Major Electrical Engineering. I am writing to express my interest in pursuing the MASc at Department of Electrical Engineering & Computer Science of York University. My main research interest is Embedded Hardware/Software and Low power mixed-signal Integrated Circuit Design. The main reason for me to pursue a graduate degree is to gain advantage in the job market and further specializing into a professional field of my interest. I am excited by the prospect of performing research and broadening my knowledge of Integrated Circuit Design, and I believe I would make an excellent Master candidate.

I took Professor Ghafar-Zadeh’s class EECS3215 Embedded Systems in 2017, I was immediately fascinated by the idea of (elaborate----example: How bio/ Electrical engineering works in the medical field. (describe what Professor’s major research field and why this interest you and would like to join him) and I have discussed about the available Master position in BioSA Research Group. As he found me a qualified candidate for this position, supporting my application, he has agreed to be my Master supervisor should I be accepted. (可以这么说吗？换个说法）

I am passionate about embedded system and Integrated circuit design. During my time as an undergraduate student I have been working in BioSA laboratory under professor Ghafar-Zadeh’s supervision for two semesters, and it was a really good time collaborating with him. There was

For my first project I participated in the *Age-Related Macular Degeneration Diagnostic Tool: Hardware and Software Development.* In this project, I developed a wireless input apparatus that can capture hand gestures. The resulting device can recognize two distinct hand gestures made in real-time with an accuracy of 82%.

The second project I is *A Non-Invasive Wireless Respiratory Monitoring System for Animals.* In this project, I 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. The research was showcased in Lassonde Undergraduate Research Conference 2018.

Finally, I participated the *Core-CBCM CMOS Capacitive Sensors for Life Science Applications* project. In this project, I built a test platform for the capacitive sensor designed by another PhD student. The test platform includes a PCB interface, a microcontroller that generate the test signal and a python test script that has a GUI. Through the series of projects, I’ve done in the BioSA laboratory I have gained a well understanding of all aspects of embedded system design including microcontrollers, serial communications, power supply modules and PCB design. However, I would like to dig deeper into the integrated circuits that I worked with when designing a PCB. Including how they are their design, analysis and testing methodology; And the tools involved such as FPGA and Cadence.

Lay out a concise and orderly research plan for the near and distant future. Ask yourself what you would do in your field if you had unlimited resources.

What are you going to research about? What is the topic? Describe the project and how are you going to achieve it?

谈谈你为什么想读这个学位the advantage of York’s Master’s Program, such as facility,advanced labtory, friendly staff,etc.,

I have also passed most of the related electronics courses with good grades such as EECS3611 Analog Integrated Circuit Design, EECS3612 Sensors and Measurement Instruments and EECS4421 Introduction to Robotics in which I got an A. However, I do not meet the requirement for admission; That is because of two major reasons: 1) I was suffering depression caused by my relationship and family issues; 2) The course curriculum for the first-generation electrical engineering students was not well organized. These problems will no longer trouble me if I will be joining this program. I have recovered and learn to handle my problems. I am ready for furthering my academic achievement.

Rework your opening summary.

首尾呼应， 总结点题。

I could greatly benefit from Professor XXX’s teaching and guidance in applying these ideas to my project.

Sample

With this letter I wish hereby wish to apply and state my motivation for entrance to the Master program in Welfare Economics at the University of Sheffield for the 2014/15 academic year.

I appreciate this opportunity to introduce myself at your University and I perceive it as a perfect opportunity to support my application for the Master program in Welfare Economics offered by your University. With my educational background and working experience, I strongly believe that I am suitable candidate for the programme. I have chosen this University as my first choice because of valuable scholarly resources and well-known reputation of the highly qualified education of the University of [Name of the University].

Since I was young I have always had a keen interest in Economics. I began to subscribe to the periodicals dealing with current events since middle school. At the university, I focused more on the economic welfare and took some elective courses in political economy and economic theory. Through the program, I not only made a systematic study of principle of economics, but also learnt the economical analytical methods to public policy, such as Game Theory, Principal-Agent theory and Taxation theory and principles. My dissertation was in the field of public finance and policy impacts on social welfare. My research results were accepted provisionally by the relevant department of municipal council and I was invited to contribute to the dialogue. Since then, I found my passion on welfare economics, and I set my profession goal being an economic adviser of welfare policy and contributing to improve the lives of ordinary people.

I believe that countries in North Europe are perfect place for studying welfare policy. Since your University is the only university which offers a program combining economics and social welfare policy in a master’s degree, I have decided to place my application for Master degree programe here. After I read carefully the curriculum and the course requirements, I believe that it perfectly matches my research interests and profile. Thanks to the University website, I gained useful information about the University campus and the student life.  Bearing in mind the previous I believe I can fit perfectly achieving ideal academic results.

As I understand, this programme is very competitive, attracting highly motivated students, but I am convinced that my good record at the University and professional experience give me a strong recommendation for a place at it. Therefore I would be honored if you decide to accept my candidateship for Master studies. In the same time I am aware of possible challenges and high investments of effort I will have to place in order to successfully complete this course.

Thank you in advance for considering my application.

Sincerely,

Applicant