# 2008 Statistics and Actuarial Science Awards

The Department of Statistics and Actuarial Science is pleased to honor its students, staff, and faculty every year during our Annual Awards Reception. A full copy of all of the award winners is available on our web site at http://www.stat.sfu.ca/programs/awards.html

The Department has 6 major awards:

> The April Allen Memorial Undergraduate Scholarship for students with high standing in Actuarial Science established by T.A. Townley & Associates to honor the spirit of April Allen.

The Watson Wyatt Scholarship for students with high standing in Actuarial Science established by the Watson Wyatt Company.

The Pacific Blue Cross Scholarship for students with high standing in Actuarial Science established by Pacific Blue Cross.

R. Bruce Coles Memorial Scholarship in Actuarial Science.

> The Statistical Society of Canada (SSC) award.

The Statistics and Actuarial Science Endowment Awards (three awards) funded by earnings on our departmental endowment fund.

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## **April Allen Memorial Undergraduate Scholarship**

This scholarship is awarded annually to students within their first year of being admitted into one of the Actuarial Sciences programs who demonstrate excellence in academic performance and exhibit potential for success in the actuarial science field. Preference is given to students who have personally been affected by cancer and/or have demonstrated leadership and/or service to an organization involved in cancer research and care. It was established by D.A. Townley & Associates to honor the spirit of April Allen.

### (Joe) Kuan Chiao Wang writes:

I am very honoured to be the recipient of the April Allen Memorial Scholarship this year. Two years ago, as I was on highway 97 toward Fort Nelson with my partner, I could not imagine that I would be the actuarial science student I am today.

I used to work as an insurance associate in American Income Life Canada, which promotes the insurance coverage designed specifically for union members and their families. In order to serve all the union members across the province of B.C., I often needed to travel with my colleagues to different cities that I have never heard of.

During those trips, I had experience struggling with the heavy blizzards on the highway. Furthermore, I had met people with all kinds of jobs: doctors, plumbers, lumber camp loggers, truck drivers, etc. More importantly, they all faced different situations in their daily lives: single, married, single parent, or big family. For me, it especially opened my eyes, when our family immigrated to Canada for only a few years, the circle of people we interacted with was relatively limited. I have met families interested in health coverage for their children but could not afford the premium. I have also met families that lost their provider who had no insurance, and the family had to face serious financial burdens immediately. I realized the mortality tables were not just numbers, but they can impact people's lives. Insurance is more than calculating the premiums and possible net present values for an annuity; more importantly it offers peace of mind. I feel fortunate that I am able to study actuarial science now. Not only because I like problem solving, but also I know I can help many people who I might not have a chance to meet.

Furthermore, I was a volunteer nurse assistant in the emergency registration department of Jen-Ai municipal Hospital, Taipei, Taiwan, and my main duty was to measure and record the blood pressure, ear temperature and pulse rate when the patients visited the ER. In case that where the nurses were too busy, I was responsible to provide help with miscellaneous tasks, such as transferring patients from ER to the other departments.

While I have completed several classes in actuarial science and statistics, I have also passed Society of Actuary (SOA) exams P, and completed the economics courses that satisfy the SOA's Validation of Education Experience (VEE) course requirements. Now during my spare time, I have been tutoring students for first and second year mathematics, chemistry and physics as my part-time job. I am planning to take exam FM and MLC this year. In addition, I hope that in the future I will be able to excel at the knowledge Ms. Sanders, Dr. Tsai and Dr. Parker passed on to me and enjoy my journey as an actuary.

### Xiaokang Sheng writes:

I have been studying at Simon Fraser University for more than one year. This is my fourth term and is also the first term that I was officially accepted into the Actuarial Science program. I'm really excited about being a member of this team.

I'm a second degree student. I finished my first degree at Nankai University in China and majored in Information and Numerical Science. The first time I heard the word "actuary" was in a Financial Market class in Nankai. The professor introduced this new concept to us and told us a lot of information about how to become an actuary. After that class I was very interested in actuarial science. I began to think of my future plans, especially my career and talked to that professor in person. He gave me more details about taking the SOA exams and suggested that I continue my study abroad.

After becoming more informed about actuarial science, I found that being an actuary is a fantastic job that totally matched my interests and expectations. I have been strongly interested in mathematics since primary school and I am pretty good at it. To be an actuary can also give me various choices, because actuaries can not only assess the risk of events occurring and help create policies that minimize risk by exercising their knowledge of mathematics, statistics, accounting, organization and analysis, but also can play an important role in other areas such as finance, investment management, economics, and demography.

Using the mathematics knowledge I had gained, I was able to handle the first two SOA exams, but I needed more professional knowledge to challenge the upper level tests. Ultimately, I decided to come to Canada to pursue my dream. I found that SFU is the only university to offer an actuarial science program in Vancouver. Last Spring I got admitted to SFU and began to take

STAT, BUS and ECON courses to meet the VEE requirements. I have continued to maintain an excellent academic record during the last three terms.

This term I began to take ACMA courses. Compared with other courses I took before, they are more difficult and challenging. I need to put more effort in those courses. According to my performance in the previous terms, I am really confident of my further study in actuarial science. I am planning to take more SOA exams before I graduate from SFU. I hope to complete my Bachelor's degree over the next year.

## Watson Wyatt Scholarship

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This scholarship is awarded annually to a student in an approved Actuarial Science program who has completed ACMA320. It is granted on the basis of academic performance.

## (Joyce) Yi Zhang writes:

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I am a fourth year undergraduate student, majoring in Actuarial Science at SFU and expect to graduate by the end of 2008.

I started my study at SFU in Jan. 2004. I surprisedly found that there are so many academic programs and courses at SFU for students to choose. However, at the very beginning, I was simply not sure which subject and program I should choose as my major. I liked Mathematics very much in both my junior and senior high school's studies and always got good grades. Therefore, having a rough idea that I should choose a program, which is closely related to Mathematics but also applicable in our daily life, I selected most of my courses in Math and Statistics.

The first time I heard about Actuarial Science was when a friend of mine showed me the website of "be an actuary.org" and the words "career without boundaries" aroused my interest immediately. So I could not help looking into it in more details. The more I searched, the more I felt interested in it. And I finally realized that Actuarial Science was just what I was looking for. However, at first, I felt a little bit hesitant applying for the Actuarial Program, because I had heard that the Actuarial Science Program at SFU is quite good, but very competitive. Particularly its ACMA courses are very challenging and difficult to learn. But still, my great interest in the subject pushed me forward. So I started to fill out all the required courses of the Actuarial Science Program. Even though some of the courses proved to be very difficult and tough, and sometimes even left me feeling frustrated, I still strove for further progress and the best result possible.

In the spring semester 2006, I was accepted into the Actuarial Major Program with outstanding academic achievements. The Actuarial Science study has proved to be very challenging, fascinating and very fruitful to me. I really enjoy the academic discussions about material and difficult problems in Actuarial courses and Statistics, which I should say benefited me a great deal. Along with my studies, I am starting to have a clearer picture of how it is like to work as an actuary and I have found my interest in this profession increasing day by day.

I did an 8-month coop term with Mercer Human Resource Consulting in the year 2007 and now I am doing a 4-month coop at Manulife in their Toronto office. All the coop terms are very valuable to me, because they enable me to integrate my academic study with practical experience in the business and industry. Of course, I know Actuarial Science is by no means an easy major, it needs great diligence and devotion. And there is still quite a lot of work for me to do to become a qualified actuary. However, I firmly believe that as long as I continue to study and work hard, I shall reach my career goal one day in the future.

## **Pacific Blue Cross Scholarship**

One Pacific Blue Cross Scholarship in Actuarial Science will be made available, based on academic merit, to a 3rd or 4th year student with a declared major in Actuarial Science.

### Shuo Lu writes:

After two years in Langara College and two years in Simon Fraser University, I have just completed all the credits needed to graduate. Being awarded the Pacific Blue Cross Scholarship is a great achievement for me and am greatly motivated to continue on my path of becoming an actuary. I would like to thank the people at Pacific Blue Cross for their generous support.

I'm so glad that I made the decision of pursuing a career in actuarial science when I first transferred to SFU. I've had a great experience in the past two years. I've been enjoying challenging myself by those tough but interesting ACMA courses and discussing actuarial science problems with my classmates. Although sometimes I felt frustrated, I still strove for best results possible and I successfully maintained a high level GPA.

Now with four SOA exams, I'm seeking a co-op opportunity to put into practice theories I've spent years learning. I know that there is a long way ahead of me before being a qualified actuary and I will be facing a lot of difficulties, but I'm confident that with hard work I will finally reach my goal.

# **R. Bruce Coles Memorial Scholarship**

This scholarship is awarded annually to a student in an approved Actuarial Science program who has completed ACMA320. It is granted on the basis of academic performance.

### Vicky Yen writes:

I first heard about actuarial science from my uncle, who is an actuary working for ING in Asia. At that time, I was still a freshman in the Faculty of Science at the University of British Columbia. Exhausted from hours of tedious chemistry labs, physics experiments, and molecular structures, I realized that my interest was not in the field of science. Thus, I began pursuing a more suitable and expedient career goal. With my uncle's informative and encouraging

suggestions as well as my research into the field, I have decided that I wish to become an actuary.

After completing my first year in UBC, I applied for a transfer to Simon Fraser University to study actuarial science. Although learning that the actuarial science program was very competitive, I was determined to give it a try since I knew that this career would be very suitable for me.

I am currently a fourth year student in the Actuarial Science program in SFU and I am graduating in the spring of 2008. Upon completion of my degree, I plan on working in a financial institution, where I can contribute my knowledge to help analyze the potential risks and profit gains from a business investment. Putting my innovative ideas to use, I can also help create financial tools that enable the company to compete with other financial firms. I have confidence that with my positive attitude and motivation, I can become a successful actuary in the future.

## (James) Zhujun Xu writes:

To be honest, I had planned to be a professional poker player prior to my actuarial study. Undoubtedly, knowledge of statistics is the key to winning, which drove me to visit our department two years ago. However, I immediately changed my mind after being caught by the introduction to actuarial science. Intuition told me, an actuary might be my dreaming career.

Before I took ACMA 210, the first course in the SFU actuarial science program, I was told by a few friends that actuarial science was very challenging and better spend more time studying. Meanwhile, since I didn't have enough life savings, I had to either work or get a student loan to finance my study. Due to lack of confidence, I decided to temporarily keep my full-time job to see how far I could go.

Right after I started, I found that the competition for this program was very high and the courses were demanding as well, particularly the ACMA courses. However, I also realized that the ACMA program is exactly what I had been looking for. The professors also made the courses interesting and lively. Even though I have been busy with working and studying in the past four semesters, I really enjoyed learning STAT, ACMA and BUS courses.

Happily, my hard work paid off. Currently, I am working as an actuarial co-op student at Sun Life Financial, applying the solid knowledge and skills built up at SFU to the real world. I've successfully passed the SOA exams P, FM and MLC. I will be sitting both MFE and exam C in the coming May, probably FAP afterwards. An actuary is by no means an easy career, but I am motivated and determined to be successful in the near future.

At last, I would express my appreciation to the staff and faculty members in our department for their generous support during my study.

# **Statistical Society of Canada**

The Statistical Society of Canada Award will be presented to an undergraduate student who is a declared major/honors in Statistics and/or Actuarial Science. The criteria for selection for the award are academic merit and a commitment to the mission of the SSC. The SSC is a national organization representing statisticians from across Canada. Its mission is to encourage the development and use of statistics and probability.

To achieve this, the Statistical Society of Canada:

- helps to develop a public awareness of the value of statistical thinking and the importance of statistics and statisticians in Canadian society;

- works to ensure that decisions affecting Canadian society are based on appropriate data and valid statistical interpretation;

– promotes the highest possible standards for statistical education and practice in Canada;

- promotes the development of statistical methodology;
- promotes a sense of community among all statisticians in Canada;

– provides a forum for the exchange of ideas between theoreticians and practitioners of statistics.

This award was generously endowed by the Statistical Society of Canada using proceeds of the net revenue from the SSC Annual Meeting held at Simon Fraser University in 2001.

The Statistical Society of Canada Award will be presented to an undergraduate student who is a declared major/honors in Statistics and/or Actuarial Science. The criteria for selection for the award are academic merit and a commitment to the mission of the SSC.

## Jervyn Ang writes:

I was born in Singapore, but I moved to Canada nine years ago at the age of ten. At this time, I was already extremely interested in Mathematics and wanted to study it a lot more. This held true while I went through secondary school.

Having completed Mathematics 12 at age fourteen, I was anxious to learn more Mathematics as I continued my schooling. I considered pursuing a degree in various subject areas, but I eventually narrowed down my choices for post-secondary education. Having been advised on many occasions against doing pure Mathematics in favor of practicality, I set my sights on pursuing a degree in Actuarial Science. This led me to the program at Simon Fraser University.

At SFU, I took some courses in Economics, Statistics, and Mathematics, and my interest in these subjects grew. Being at or near the top of all my classes, I thought I would end up breezing right through my University career. This idea changed while I took ACMA-210; and after that, ACMA-320 and ACMA-315.

Even combining my proficiency in Mathematics and Statistics, the challenge of these courses surprised me quite a bit. I found my performances not nearly as stellar as they were in my previous courses. However, I did not allow myself to get discouraged.

My desire to learn, fascination with the subject, together with my determination to succeed, eventually allowed me to learn a tremendous amount from my Actuarial Mathematics and Statistical courses. I gained a deep understanding of various topics in Actuarial Science and Statistics, and I knew I wanted to one day work as a consultant or as a researcher in either of these fields.

Finding myself wanting to try my hand in research, I spent the summer of 2007 as a research assistant in computer experiments after having been awarded an NSERC USRA. The experience has taught me a lot about research, and has positively affected my decision to pursue a masters' degree in Statistics.

Now, I am in my final semester of my undergraduate degree and I look forward to graduating just before my 20<sup>th</sup> birthday. I wish to thank my parents, who have been very supportive of my decisions and allowed me the independence that I needed to thrive. I am also extremely grateful to my professors for all the challenging and fascinating courses that they have taught and for their continued support as I continue my academic career. With this, I am confident that I will learn enough to succeed in a job as a consultant, or in any other job in Statistics or Actuarial Science.

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## **Statistics and Actuarial Science Endowment Awards**

## Yinlai Meng – Roger Yang – Phillip Jang

These awards are presented to students in the major/honor program with high academic standing.

## Yinlai Meng writes:

Before I stepped into SFU to study statistics, I worked as a high school math teacher for five years and then as a market research and analyzer for three years. After immigrating to this beautiful and peaceful country, I decided to pursue a more successful career and happier life. I found Statistics a good study choice which is able to combine my previous academic foundation and various working experience perfectly.

I started my statistics study in the Department of Statistics and Actuarial Science at SFU in January 2006. The first term was difficult and the two 300 level courses required lots of review of my previous math and probability knowledge. But on the other hand, this term helps me refresh my knowledge and prepare well for future study. I always keep communicating and discussing with the professors and TAs about the academic questions and their extension to the real world and got lots of invaluable ideas, comments and suggestions from them. I did very well for each course I took during that year and was admitted into the statistics major after the first term. At the same time, I started to apply for Co-op and planned to get some ideas about the application of statistics in the real world.

My first Co-op term is 2007 spring at a human resource management company as a research assistant. I was so happy that I have a chance to support the famous "50 Best Employer Survey Study" and learned how the survey is revised, collected, conducted, analyzed and published.

My second Co-op job is 2007 winter at a lung cancer research organization in Vancouver. I assisted the data analysis manager to get the data from its database and perform data and image analysis. I also compile data from multiple databases or other sources. The most valuable experience is programming and developing software tools for analyzing data. Based on this job, I gained experience with statistics in experimental testing and the experimental process. No doubt, this job makes me more familiar with experimental research and leads me to the right career field I like.

I go back to school and take two 400 level courses this term with the rough picture of how statistics is used in the real world which I got from my last two jobs. I feel different when I study, more insightful and more confident. I still work for my last employer part time to keep my exploration of the application of my knowledge and keep learning more practical skills as well.

Now I try to explain some statistical results from the newspaper to people on the bus with simple words and to tell them how wonderful and valuable my statistical job is.

## **Phillip Jang writes:**

Ever since I was young, I've had a fascination with numbers, and a strong obsession with scoring high. I was always a step ahead of my peers when it came to virtually anything in school, as I enjoyed the satisfaction of conquering challenges, competition, and of reaching that 100%. Although math was the pinnacle of my abilities, I did not know what kind of job I could find doing math, and was thinking of going into either the natural sciences, which I also excelled at and found fascinating; or business, which I found neither interesting nor challenging, but did provide good jobs.

My first exposure to actuarial science came from my high school counselor who told me of a hot job on the market involving lots of math. At that time I still thought I would be going to UBC to take physics or chemistry, or going into accounting since I was "good with numbers," but the more I learned about actuarial science, the more it caught my eye. Thanks to my high school's career preparation program, and to Westcoast Actuaries Inc. who were kind enough to give me a preview of what actuaries do, I was convinced that actuarial science was the way to go.

After taking my first few courses in actuarial mathematics, I can say with assurance that this is the correct program for me. I took ACMA 210 in the fall of 2007, I was shocked to see how scientific this field is, using every mathematical tool we've learned from the quadratic formula and geometric series to Newton's Method and Taylor series. The following semester, I took ACMA 320, which was far harder than any course I've ever taken, where even A students were failing midterms in that class. I have never been so challenged by a math course before, but also never so inspired.

I would like to give thanks to my family and friends for all their support, the Statistics and Actuarial Science Department for all their help, and to my professors for passing on their knowledge and for caring for their students. I've learned so much in the actuarial science program, and met so many great people. There are still many more challenges that await me, and my drive to take them on has never been stronger. Bring it on!

### Department of Statistics & Actuarial Science Awards Reception 12:30 p.m., April 8, 2008, Halpern Centre #114

#### **Undergraduate Awards**

#### **Undergraduate Open Scholarships:**

Jervyn Ang 1077, 1081 Qian Cao 1081 Shu Man Chan 1081 Raymond Chiang 1077 Phillip Jang 1074, 1077, 1081 John Kowalik 1081 Rong Li 1074 Shuo Lu 1077, 1081 Tim Luo 1074, 1077, 1081 Yifan Xu 1074, 1077, 1081 Jinhuang Yan 1081 Roger Yang 1074, 1077, 1081 Vicky Yen 1074, 1077, 1081 Ying Yuan 1081 Yi Zhang (Joyce) 1077, 1081 Yuchen Zhang 1081 Wei Zhao 1077, 1081

#### Alumni Scholarship & Bursary Endowment Fund:

Jervyn Ang 1077, 1081 Raymond Chiang 1077 John Kowalik 1081 Shuo Lu 1077, 1081 Yifan Xu 1074, 1077 Yuchen Zhang 1081 Wei Zhao 1077, 1081

#### The Gordon M Shrum Scholarship:

Ping-Teng Lin 1074, 1077, 1081 Henry Liu 1077, 1081 Brad Neilson 1077, 1081 John Than 1074, 1081 Tommy Yip 1077, 1081 **The Summit Entrance Scholarship:** Yejun Song 1077, 1081 SiCong Yan 1077, 1081

Ken & Su Jang Scholarship for Women in Science: Yi Zhang 1077

April Allen Memorial Undergraduate Scholarship Kuan Chiao Wang (Joe) Xiaokang Sheng

**R. Bruce Coles Memorial Scholarship:** Vicky Yen Zhujun Xu (James)

Pacific Blue Cross Scholarship: Shuo Lu

SSC Endowment Award: Jervyn Ang

#### Statistics & Actuarial Science Endowment Award for excellent achievement in the Majors & Honors program:

Yinlai Meng Roger Yang Phillip Jang

Watson Wyatt Scholarship in Actuarial Science:

Yi Zhang (Joyce)

#### **Graduate Awards**

**Michael Smith Foundation for Health Research Trainee Award:** Eric Sayre

Kelly Burkett Jean Shin

**CIHR Doctoral Research Award:** Kelly Burkett

**Pacific Century Graduate Scholarship:** Jorge Rodriguez

**NSERC Industrial Postgraduate Scholarship:** Carolyn Huston

**NSERC PGS M Scholarship:** Wei Qian Kyle Vincent

**CONACyT Graduate Scholarship:** Elizabeth Juarez Colunga

**Postdoctoral Fellowships:** Doug Woolford Laurie Ainsworth

**Special Graduate Entrance Scholarship:** Jillian Falkenberg Jorge Rodriguez

President's PH.D. Research Stipend: Simon Bonner Chunfang Lin

**MSc Graduate Fellowship:** Luyao Lin Suli Ma

ACCELERATE BC Internship Showcase -**Award Winner:** Simon Bonner

Second Prize for the Outstanding Poster Presentation at the Joint Statistical Meeting 2007: Matt Pratola

#### **Faculty Awards**

**Jack Youden Prize:** Derek Bingham Crystal Linkletter

2007 Alumni Achievement Medal University of Waterloo Charmaine Dean

Elected as a Fellow of the American **Statistical Association:** Charmaine Dean