

Siang Lim

siang@alumni.ubc.ca • (604) 600-2213 • <http://www.siang.ca/>

EDUCATION

University of British Columbia

Chemical Engineering,
Computer Science (Minor)
Graduation: May 2017

CGPA: 4.20/4.33
(88%, 'A' average)
Honors: Dean's List, NSERC USRA

ACTIVITIES

UBC Chem-E-Car

Vice-Captain (2015 – Present)

Chemical Engineering Undergraduate Student Club

Webmaster (2015 – Present)

UBC Thunderbird Marching Band

Tuba/Sousaphone Player (2014)

AWARDS

UBC Graham Somerville

Scholarship Awarded on the basis of academic standing on recommendation of the Department.

UBC Ying Ying Zee Chan

Scholarship Student with first class standing and chosen by class and faculty to be most helpful to others academically.

AICHE Donald F. Othmer Sophomore Academic Excellence

Award Chapter member with the highest GPA, on recommendation of the Chapter Advisor.

WORK EXPERIENCE

FortisBC Inc.

Engineering Intern - Summer

Energy Solutions Team

May 2016 – Sept 2016

- Refined cost estimation algorithms for gas pipeline installation, leading to improved accuracy in a new Online Service Application tool.
- Developed business intelligence and data analytics tools in *Excel* and *VBA* for FortisBC's energy conservation programs.

UBC MathBio Group

Research Assistant (Computational)

Vertex Dynamics Models

Sept 2015 – Current

- Conducted computational research for coupling protein signaling and mechanical deformation during *Drosophila* embryo development.
- Built simulations of epithelium cells using vertex-based models with a half-edge data structure and coded efficient ODE solvers in *Python*.

UBC Dept. of Computer Science

Co-Lead TA (Intro to C Programming)

Programming Course Staff

Jan 2016 – Current

- Assisted first-year engineering students with understanding technical concepts and helped debug their C code.
- As Lead TA (Marking), coordinated a team of 40 TAs that handled over 600 students, ensuring consistent grading practices across different lab sections.

TECHNICAL PROJECTS

UBC Chem-E-Car Design Team

Vice-Captain

- Proposed, created and maintained team website (*Bootstrap* framework) and built an expense tracking web app using *Ruby on Rails*.
- Trained junior webmasters and ran workshops on introductory web development: *git*, *HTML*, *CSS*, *Javascript* etc. for new members.
- Raised \$50,000 in grants and corporate sponsorship. Expanded team from 7 to ~40 students in 2 years and streamlined organizational structure.

Craft Beer Brewing Automation

IoT App Project (In Progress)

- Design and development of an automated beer brewing system with various controllable parameters, coupled to a web and mobile interface.
- Planned completion by November 2017, in conjunction with the 2017 *AICHE National Mobile Device App Competition* in Minneapolis, MN.
- Hardware: *Arduino* microcontroller with temperature, pH, density probes and other sensors. Software: *Node.js* backend, *RabbitMQ* messaging server.

CPSC 314: Computer Graphics

Rendering and Modeling

- Modeled a star-nosed mole in *three.js* using unit cubes and 4x4 transformation matrices. Model was selected as the best project in class and inducted into the course's online hall of fame.
- Designed a 3D FPS game using *WebGL* and *three.js* and implemented features such as collision detection and realistic physics.
- Received an 'A+' grade overall, class rank #6 out of 86 students.