

Brandon Chung Yuen Yeung

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EDUCATION

Swarthmore College

B.S. Engineering w/ concentration in Mechanical Engineering; Minor in Physics

GPA: 3.99/4.00

GRE: 163/170 Verbal, 170/170 Quantitative, 4.5/6 Writing

Swarthmore, PA, USA

Aug 2014 – May 2018

Li Po Chun United World College of Hong Kong

IB Bilingual Diploma & UWC Diploma, Davis UWC Scholar

Score: 40/42 (41/45 w/ bonus points)

SAT: 2350/2400 (800/800 Reading, 760/800 Mathematics, 790/800 Writing)

Hong Kong

Sep 2012 – May 2014

EXPERIENCE

Swarthmore Fuel Cell Vehicle

Engineering Senior Design Project

- Redesigning and rebuilding the Swarthmore prototype fuel cell vehicle
- Preparing for 2018 Shell Eco-marathon Americas

Swarthmore, PA, USA

Sep 2017 – Present

Swarthmore Nonlinear Dynamics Lab

Research Assistant

- Contributed to improving mechanistic studies of ultrasound-assisted, microbubble-mediated thrombolysis
- Trained to operate a confocal fluorescence microscope
- Fabricated synthetic thrombi from 0.1 – 1.0 unit/mL thrombin
- 3D printed scaled models of thrombi
- Analysed confocal micrographs and 3D prints for porosity variation
- Developed technique for performing finite element analysis on 3D thrombus model in ANSYS
- Estimated effective stiffness of thrombus in x, y, z directions in simulation
- Investigated variations in experimental procedure to isolate causes of unexpected anisotropy
- Implemented Rayleigh-Plesset Equation (single bubble oscillation due to sound field) in Mathematica

Swarthmore, PA, USA

Jun 2016 – Jul 2017

Tencent (Internet Company)

Data Centre Intern

- Monitored and adjusted air conditioning systems of data centre modules based on load
- Installed baffles on module housings to reduce cool air leakage
- Assisted with inspections of servers and air conditioning systems during routine power cut drill

Shenzhen, China

Jun – Jul 2015

PUBLICATIONS

Conference Presentation

- **Yeung BCY**, Everbach EC, 2017, "Simulating Fibrin Clot Mechanics Using Finite Element Methods," 173rd Meeting of Acoustical Society of America and 8th Forum Acusticum, Boston, MA

Posters

- **Yeung BCY**, Everbach EC, 2017, "Simulating Fibrin Clot Mechanics Using Finite Element Methods," Biomedical Acoustics Best Student Paper Competition, 173rd Meeting of Acoustical Society of America and 8th Forum Acusticum, Boston, MA
- **Yeung BCY**, Everbach EC, 2016, "Fabricating and 3D Printing Fibrin Clots to Gain Insight Into Sonothrombolysis," Sigma Xi Student Research Poster Session, Swarthmore College, Swarthmore, PA

HONOURS

- **McCabe Engineering Award** Engineering student of graduating class w/ highest GPA May 2018
- **Member** Phi Beta Kappa Swarthmore College Chapter May 2018 – Present
- **Tau Beta Pi Scholarship**, Tau Beta Pi Jun 2017
- **Member** Acoustical Society of America Jun 2017 – Present
- **President** Tau Beta Pi Swarthmore College Chapter May 2017 – Present
- **Member** Sigma Xi Swarthmore College Chapter Nov 2016 – Present
- **Member** Royal Aeronautical Society Sep 2016 – Present
- **John W Perdue Memorial Prize** Engineering student of rising junior class w/ highest GPA Jun 2016

COMMUNITY SERVICE

- **Co-leader** Mandarin Tutorial Team Li Po Chun UWC of Hong Kong Sep 2013 – Apr 2014
- Created vector illustrations for **Wikipedia** articles Sep 2013 – Apr 2014
- Volunteered at **Mai Po Nature Reserve** Hong Kong to maintain and improve wetland conditions Sep 2012 – Apr 2014

SKILLS & INTERESTS

- **Software:** Microsoft Office, Apple iWork, LaTeX, Adobe Illustrator, KaleidaGraph, MATLAB, Mathematica, ANSYS, ImageJ
- **Hardware:** Basic Electronics Lab, Basic Wet Lab, Mechanics Lab, 3D printing
- **Languages:** Mandarin, Cantonese, Python, Basic C, Basic HTML&CSS, Basic Verilog

- **Career Interests:** Aeronautics & Astronautics, Ultrasound Imaging
- **Research Interests:** CFD, boundary layer flow, electric aircraft, other unconventional aircraft
- **Extracurricular Interests:** Swarthmore College Golf Team 2014, Li Po Chun Badminton Team 2013, Sketching, Photography