

# Yun William Yu

---

## CONTACT INFORMATION

WWW: [yunwilliamyu.net](http://yunwilliamyu.net)

E-mail: [contact@yunwilliamyu.net](mailto:contact@yunwilliamyu.net)

## EDUCATION

**Imperial College**, London, UK (Marshall Scholar)

Master of Philosophy, **Mathematics** (expected graduation: June 2012)

- Thesis Topic: *Local, multi-resolution detection of network communities by Markovian dynamics*
- Advisors: Prof. Mauricio Barahona & Dr. Sophia Yaliraki
- Area of Study: Biomathematical Sciences Group

Master of Research (Distinction), **Biomedical Physical Chemistry**, September 2010

- Thesis Topic: *Protein Dynamics: Applications of Graph Theory and Community Detection*
- Advisors: Dr. Sophia Yaliraki & Prof. Mauricio Barahona
- Lord Porter Prize for best thesis

**Indiana University**, Bloomington, IN USA

Bachelor of Science, **Mathematics**, May 2009

Bachelor of Arts, **Chemistry & Germanic Studies**, May 2009

- Phi Beta Kappa, With Highest Distinction, General Honors Notation, Departmental Honors in Mathematics
- GPA: 3.99/4.0
- Minor in Biology
- Semester-long study abroad at University of Freiburg, Germany

## AWARDS & HONORS

Hertz Foundation Graduate Fellowship, 2012

NSF Graduate Research Fellowship Honorable Mention, 2010

Imperial British Marshall Scholarship, 2009

Barry M. Goldwater Scholarship, 2008

**Indiana University Bloomington**

- Department of Mathematics:
  - Ciprian Foias Prize, 2009
  - Marie S. Wilcox Award, 2006, 2009
  - Thelma Abell Prize, 2008
  - Cora B. Hennel Memorial Scholarship, 2007
- Department of Chemistry:
  - James C. White Award, 2009
  - William H. Bell Award, 2008
  - Dennis G. Peters Scholarship, 2007
  - Harry G. Day Summer Research Fellowship, 2007
- Department of Psychological & Brain Sciences:
  - Summer Capstone Research Award, 2006
- Department of Biology:
  - Integrated Freshmen Learning Experience, 2005
- Wells Scholars Program, 2005–2009

## ACADEMIC EXPERIENCE

**Imperial College**, London, UK

*Graduate Teaching Assistant*

**October 2010 to December 2010**

- Lab demonstrator for Modelling in Biology (BE3-HMIB), a 3rd/4th year Bioengineering module taught by Dr. Guy-Bart Stan & Dr. Aldo Faisal.
- Also graded lab reports/problem sheets.

*Postgraduate Student*

**October 2009 to September 2011**

**Indiana University**, Bloomington, Indiana USA

*Undergraduate Researcher*

**December 2005 to July 2009**

- Used computational techniques to find  $SO(2n - 1)$ -dense homomorphisms of non- $SO(3)$ -dense triangle groups, working under Professor Michael J. Larsen.
- Researched mechanisms of pain transmission in the molecular neuroscience laboratory of Professor J. Michael Walker, using a variety of analytical chemistry and molecular biology techniques.

*Member, Board of Aeons*

**August 2007 to May 2009**

*Student research and advisory panel to IU President McRobbie*

- Researched solutions to student issues on the Bloomington campus.
- Conducted surveys, focus groups, and interviews regarding the student union building and the Hutton Honors College.
- Compiled and analyzed data gathered. Presented findings and recommendations to relevant IU administrators.

*Co-facilitator, Labyrinth Literary Magazine*

**August 2005 to March 2009**

*Undergraduate literary magazine for poetry, short prose, and visual art*

- Organized and publicized panel discussions and readings for aspiring writers.
- Conducted surveys, focus groups, and interviews regarding the student union building and the Hutton Honors College.
- Designed organizational website using CSS, XHTML, and SSI.

*Undergraduate Teaching Intern*

**August 2007 to December 2008**

- Assisted BIOL-L311 (Genetics) instruction under Professor Wayne Forrester.
- Taught weekly 1-hour revision sessions.
- Graded exams and weekly problem sets.

*Chemistry Department Tutor*

**August 2007 to December 2007**

- Held weekly 3-hour sessions for general and organic chemistry (Chem-C117, S117, C341, S341, C342, S342).

*Undergraduate Student*

**August 2005 to May 2009**

**PUBLICATIONS**

Tan B, O'Dell DK, Yu YW, Monn MF, Hughes HV, Burstein S, & Walker JM. (2010). Identification of endogenous acyl amino acids based on a targeted lipidomics approach. *Journal of Lipid Research*, **51**, 112–119. doi:10.1194/jlr.M900198-JLR200

Tan B, Yu YW, Monn MF, Hughes HV, O'Dell DK, & Walker JM. (2009) Targeted lipidomics approach for endogenous N-acyl amino acids in rat brain tissue, *Journal of Chromatography B*, **877**(26): 2890–2894. doi:10.1016/j.jchromb.2009.01.002

Tan B, Bradshaw HB, Rimmerman N, Srinivasan H, Yu YW, Krey JF, Monn MF, Chen JS, Hu SS, Pickens SR, & Walker JM. (2006). Targeted lipidomics: discovery of new fatty acyl amides, *The AAPS Journal*, **8**:3, 461–465. doi:10.1208/aapsj080354

**POSTER PRESENTATIONS**

Yu YW, Barahona M, Yaliraki SN. (2010). Protein dynamics: a multiscale approach using community detection and graph comparison. *50th Anniversary Symposium of the British Biophysical Society, Cambridge, UK, July 16-18, 2010*

**SKILLS & EXPERTISE**

- Programming: MATLAB (3 years), C/C++ (2 years), Python (2 years), Microsoft Visual Basic 6 (2 years)
- Operating Systems: Linux (9 years), Microsoft Windows family (5 years), OS X (2 years)

**INTERESTS**

Dance (swing, ballet, tap, contemporary), computer security, science fiction/fantasy