

Mitchell Tai

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EDUCATION

Massachusetts Institute of Technology, Cambridge, MA

Doctor of Philosophy in Chemical Engineering

Carnegie Mellon University, Pittsburgh, PA

Bachelor of Science in Chemical Engineering, May 2006

Additional Majors in Biomedical Engineering and Philosophy

Minor in Colloids, Polymers and Surfaces.

QPA: 3.96/4.00

ACADEMIC PROJECTS

Corn to Polymers: A move towards Sustainability, Fall 2006

- Senior team-based class project for Unit Operations Laboratory.
- Responsible for scale-up operations in glucose to glycerol fermentation step.
- Also part of Executive team overseeing logistics and direction of the entire class.

Methods of Combinatorial Chemistry Utilizing Microfluidic Technologies, Spring 2005

- Team-based project for Transport Process Laboratory.
- Collaborated to research and model microfluidic chip designs for combinatorial processes.

EXPERIENCE

ExxonMobil Corp., Macedon, NY

RESEARCH INTERN – Summer 2005

- Evaluated additive materials for improvements in biaxially oriented polypropylene films.
- Modeled barrier properties of metallized films with optical analysis techniques.

PPG Industries, Inc., Allison Park, PA

RESEARCH CHEMIST INTERN – Summer 2004

- Evaluated the viability and efficacy of combinatorial chemistry for coatings research & development.
- Independently worked to design, assemble, and modify laboratory equipment for combinatorial, high throughput use.

State University at Buffalo, Buffalo, NY

RESEARCH INTERN – Summer 2003

- Involved in Organic LED Semiconductor research in the Science and Engineering Departments at the University.
- Developed software package for Molecular Simulation research and instruction.
- Created module for study of Harmonic Vibrations within Lattice Structures.

COMPUTER SKILLS

MathCAD, MATLAB, Simulink, FEMLAB, C++, Java

HONORS

American Institute of Chemists Foundation Student Award, 2006

Edwin F. Wiegand Endowed Scholarship, 2004

Chemical Engineering Alumni Scholarship, 2003-2004

Carnegie Mellon University Dean's List, 2003-2006

National Society of Collegiate Scholars, 2003-2006

ACTIVITIES

Asian Christian Fellowship, Coordinator (2005)

Academic Peer Tutor

Intramural Volleyball, Football, Basketball

American Institute of Chemical Engineers

American Chemical Society

RELEVANT COURSES

42-604 Biological Transport

03-323 Biochemistry

42-621 Biotechnology & Environmental Process

06-423 Unit Operations Lab (Fermentation)

06-607 Physical Chemistry of Colloids & Surfaces

06-609 Physical Chemistry of Macromolecules