



Guangyan Gao

✉ guangyan@mit.edu

☎ (857) 756 - 0172

📍 450 Memorial Dr. #F220
Cambridge MA 02139

🌐 <http://www.loneoceans.com/>

Hi! My name is Guangyan and I love to build things. I explore the intersection of technology and art, and strive to incorporate elegant and beautiful solutions in technical and challenging projects such as computer software, mechanical machines and electrical curiosities. See the stuff that I do on my website, www.loneoceans.com.

Education

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Candidate for Bachelor of Science degree in Electrical Engineering and Computer Science

Cambridge, MA

Class of 2014

RAFFLES JUNIOR COLLEGE

Cambridge A-Levels: Grade A for Physics, Math, Chemistry and Knowledge & Inquiry (H2), Dist for Physics (H3),

Merit for Math(H3); Vice Chairman of the Electronics / Physics Club

SAT 2: Physics - 800, Math II - 800, Chemistry - 800 / SAT 1: Math - 800, Reading - 690, Writing - 610

Singapore

Class of 2007

Skills

- **Programming:** Python, Java, Web Programming (Javascript, PHP) + Microcontroller (805x etc)
 - **Design:** Fluent in great interface design including web (HTML5, CSS3) and other art forms
 - **Electronics:** Built many curious projects including Tesla Coils up to 3200W in home-assembled workshop
 - **Photography / Videography:** Photography, Videography and fluent in Adobe Photoshop, Final Cut Pro and others
 - **Languages:** Effectively bilingual in English and Mandarin Chinese
 - **Others:** MATLAB, Mathematica
- * [Projects, designs and photography documented on my website - www.loneoceans.com](http://www.loneoceans.com)

Work

MIT MEDIA LAB - City Car Project UROP research

- Worked with the Changing-Places group in designing, fabricating and testing new technologies on an in-house half-scale CityCar prototype - the car of the future.
- Designed, Implemented and programmed various systems such as the power subsystems, mechanical structures, wireless communication systems via microcontrollers, and control algorithms.

Cambridge, MA

Sep 2011 onwards

RAFFLES JUNIOR COLLEGE - International Young Physicists Tournament Trainer

- Coached the Singapore team in theory, computer modelling and simulation for the Physics competition
- Team Singapore went on to clinch first place in Vienna (August 2010)

Singapore

Mar 10 - Jul 10

SINGAPORE ARMED FORCES - Deputy S4, 20th Battalion Singapore Artillery, Rank: 1st Lieutenant

- Commanded and managed 40-person battery in training, well-being, discipline and field exercises
- Managed and planned battalion logistics for in-camp and overseas live-firing exercises

Singapore

Apr 08 - Feb 10

PHILIPS - Product Test Specialist Engineer

- Conducted comprehensive software testing and debugging of pre-market Philips DVD and BD players

Singapore

Feb 08 - Apr 08

Awards

- **Intel International Science and Engineering Fair 2005:** National Finalist
- **International Students Science Fair 2006:** Top 16 Projects Award
- **Institute of Physics Singapore Award 2007:** Top 10 in National Physics
- **A-Star National Talent Search 2006:** Special Mention Award
- **Chua Goh Siong Prize for Physics:** Top in Level 2004, 2005

Phoenix, AZ
Busan, S. Korea

Singapore

Singapore

Singapore

Interests

- **Art and Design:** Passionate in several forms of art - traditional, digital, and interface design
- **Photography:** Pursues photography with a passion; experience in wedding photography & darkroom processing
- **Mountaineering:** Climbed Mt. Kilimanjaro (5895m), highest in Africa, among other mountains
- **Music:** Piano, Guitar, Harmonica
- **Community Service:** Planned and Conducted English lessons in rural Taiwan, to bring joy to the children, and to impart teaching techniques to local schools (summer 2006)
- **Website:** Personal website since 2003 showcasing some of my work at <http://www.loneoceans.com>