

Xiaoyue Gong

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EDUCATION

GRE: 337/340; GRE Mathematics Subject: 97%

Massachusetts Institute of Technology Operations Research (Ph.D)	2017.8- Boston
New York University Shanghai [summa cum laude; Phi Beta Kappa] Honors Mathematics (B.S.) Interactive Media Arts (B.S.)	2013.6-2017.5 Shanghai graduated with major honors
Semesters at New York University New York	2015.8-2017.1 New York
Summer at New York University Tel Aviv	2014.7-2014.7 Istanbul
Budapest Semesters in Mathematics	2015.6-2015.8 Budapest
Tel Aviv University Business Entrepreneurship Program	2014.6-2014.7 Tel Aviv
No.2 High School of East China Normal University	2010.8-2013.6 Shanghai
Lake Forest High School High School Exchange Program	2011.9-2011.10 Illinois

MERIT AWARDS & SCHOLARSHIPS

• One of 14 Rhodes Scholarships in China short-listed finalists 2016	The Rhodes Trust
• Provost's Award 2017	NYU Shanghai
• summa cum laude	NYU Shanghai/NYU
• Major Honors in Honors Mathematics	NYU Shanghai/NYU
• Resolution Fellowship at the Youth Assembly at the United Nations 2016	The Resolution Project
• President's Service Award 2016	New York University
• Summer Undergraduate Research Experience	Courant Institute of Mathematical Sciences
• NYU Shanghai Dean's Undergraduate Research Fund 2016	NYU Shanghai
• Venturewell 2016 Entrepreneurs-Team + \$5K	Venturewell
• NYU Reynolds Changemaker Challenge Champion 2015 + \$10K	NYU Reynolds Program
• 2015 Autodesk IMA Smart Home Design Challenge Winner	Autodesk
• Stern 200K Entrepreneurs Challenge Semi-Finalist 2015	Stern School of Business
• CPB Scholarship 2014	Israeli Government
• Recognition Award 2013-2014 & 2014-2015 & 2015-2016	NYU Shanghai
• Dean's List 2013-2014 & 2014-2015 & 2015-2016	NYU Shanghai
• Governmental 4-year Scholarship 2013-2017	Shanghai Government
• Resident Assistant Scholarship 2014-2015	NYU Shanghai
• Freshman Merit Scholarship 2013	NYU Shanghai
• Candidate Weekend Scholarship 2013-2017	NYU Shanghai
• Intel 26th Shanghai Adolescents Science&Technology Innovation Fair First Prize	Intel
• SCIENCE&VIE Adolescents Scientific Writing First Prize	SCIENCE&VIE

MATHEMATICAL STUDIES

Student, Courant Institute of Mathematical Sciences	New York, 2015.9-2017.1
• Graduate/PhD level classes: Real Variables, Random Graphs, Stochastic Calculus, Harmonic Analysis, Differential Geometry I, Topology I, Functional Analysis, Advanced Topics in Probability: Entropy and Ergodic Theory.	
Student, Budapest Semesters in Mathematics	New York, 2015.6-2015.8
• Advanced Combinatorics, Conjecture and Proof, Real Functions and Measures	

President, New York University Mathematics Society

New York, 2016.5-2017.1

- Arranged weekly math talks and maintained a speaker and member database
- Made yearlong plan and raised the club budget received by 17%.
- Allocated tasks and managed the team
- Organised participation in mathematical conferences and competitions
- Facilitated communications among the math community of undergrads, grads and faculty at NYU

Researcher, SURE Program at Courant Institute of Mathematical Sciences New York, 2016.3-present

- Drafted the research proposal under the supervision of Professor Efe Ok
- Studied the theory of the Möbius functions and applied this theory to finding characterisation of the Myerson value and the Shapley value in cooperative games in game theory
- Illustrated and summarised the results in the format of a complete research paper
- Presented the work at Summer Undergraduate Research Experience Symposium at Courant Institute of Mathematical Sciences

Undergrad Teaching Assistant/Tutor/Grader

New York, 2015.10-2017.1

- Worked with a team of other undergraduate/graduate teaching assistants in helping students understand concepts and problems in the flipped classroom of Calculus I
- Worked as a grader for Linear Algebra class and maintained the grade database for students
- Prepared contents and provided maintenance for the class website for Introduction to Web Development & Programming

ENVIRONMENTAL DESIGN & ENGINEERING

Founder & CEO, Aeolian Inc.

Shanghai + New York, 2015.9-present

- Envisioned and founded Aeolian as a social venture that combats the severe health effects of indoor air pollution in China by providing a smart air-purifying system based on my design Air Butler in early 2015.
- Recruited team members and assigned responsibilities.
- Worked with legal consultants in drafting legal documents and patent applications
- Worked with journalists and public relation professionals to inform potential customers, investors and mentors about Aeolian
- Conducted industry research and customer survey with team members
- Carrying out the development of the core technology with engineers
- Identified and communicate with mentors and potential investors
- Worked with team members on business plans, financial projections and marketing materials (video, image, text, website)
- Presented and pitched in different formats in front of a variety of audience
- Worked with team members in conducting large-scale customer survey and focus groups studies

Researcher, Project: Air Butler-Indoor Air Purifying System

Shanghai, 2015.1-2015.6

- Conducted prior art search for similar products and projects that provide indoor air pollutant distribution data for domestic users
- Drafted the research project proposal
- Programmed the micro-controllers connected with sensors and coded the web app for the device
- Designed and 3D-printed the prototype
- Designed and printed circuit boards for the project
- Entered Autodesk IMA Smart Home Design Challenge 2015 and was one of the two winners

- Estimated the market size and developed an enterprise idea based on customer interest

Student Researcher, Project: Dye-Sensitized Solar Cells and Its Application to Sunglasses Shanghai, 2010.10-2011.4

- Drafted research proposal
- Connected with and worked with the Advanced Materials Department of Fudan University
- Studied and practiced usage of equipment and materials relevant to producing dye-sensitised solar cells under supervision
- Prepared and produced dye-sensitised solar cells for use on sunglasses
- Documented the lab results in the form of a scientific paper and received Shanghai Pudong Tomorrow's Science & Technology Star Best Speech Award in addition to a couple of scholarships
- Obtained a design patent in China for this invention

Student Researcher, Project: Segmented Usage of Alkaline Cells Shanghai, 2011.10-2012.4

- Surveyed neighbourhood committees in Zhabei District in Shanghai on disposal of used alkaline cells
- Experimented with and studied the behaviour of alkaline cells
- Proposed segmented usage of alkaline cells as an approach to mitigating the environmental hazards of alkaline cells disposal and lack thereof
- Conducted behavioural study and survey on residents' use of alkaline cells
- Presented at Shanghai Science & Technology Museum
- Prepared and produced dye-sensitised solar cells for use on sunglasses
- Received Environmental Science First Prize and scholarships at Intel 26th Shanghai Adolescents Science&Technology Innovation Fair

Assistant, East China Normal University Computational Chemistry Lab Shanghai, 2014.12-2015.3

- Studied the procedures for examination of protein conformation with softwares Sybyl and Amber
- Participated in weekly seminar

ENTREPRENEURSHIP

Team Leader, NYU Reynolds Changemaker Challenge New York, 2015.9-present

- Conducted customer survey and industry research with the team
- Drafting the business plan and financial documents with the team
- Prepared presentation slides with the team
- Made a 3-min pitch in front of judges
- Received NYU Reynolds Best Overall Venture award with \$10,000 grant
- Kept track of venture funds and budget

Team Leader, Venturewell E-Team Program New York+Boston, 2016.1-present

- Prepared the business proposal and visual documents
- Identified and solicited recommendation letters from mentors and potential investors
- Attended the multiple-day workshop at Microsoft Research Centre in Boston
- Successfully entered Stage-1 E-Teams with \$5,000 grant.
- Currently working with mentors to develop the venture further to continue onto Stage 2

Student, Tel Aviv University Tel Aviv, 2014.6-2014.7

- Attended the Business Entrepreneurship Summer Program on full scholarships provided by the Israeli government

Co-Director, HackShanghai Shanghai, 2014.5-2015.11

- Organized the largest international college hackathon in China with a team of 12 students, which inaugurated an annual tradition at NYU Shanghai
- Advocated hackathon culture in China
- Provided hardware, legal, operational and marketing support
- Identified and negotiated with sponsors, and maintained a database of sponsors

CRISIS RESPONSE & CONFLICT RESOLUTION

Resident Assistant Shanghai, 2014.8-2015.5

- Acted as a first-responder to emergencies and crises that occur in a residence hall with 600+ students
- Mediated roommate agreements and resolved conflicts among residents
- Conducted 1-on-1 meetings with 30+ residents each semester and knew my residents on a personal level
- Documented illegal/prohibited incidences and enforced university residence hall policies
- Provided medical chaperone when requested/necessary and guarantee of payment/insurance support
- Organised university-wide networking/musical events that engaged students, faculty and staff
- Provided a safe, caring special interest community environment for the purpose of fostering personal growth of residents

Cultural Ambassador Shanghai, 2014.1

- Facilitated NYU Abu Dhabi students' transition to the Shanghai campus
- Organised various events and trips to enhance Abu Dhabi students' experience in China

PUBLIC OUTREACH & ENGAGEMENT

Dance Workshop Facilitator and Volunteer, The Renewal Center Shanghai, 2013.10-2014.7

- Set up dance/physical education workshops at the Renewal Center, a place that provides shower, clean clothing, education and sometimes housing for the displaced
- Led the dance workshops with other member of NYU Shanghai XLS Dance Club to promote fitness among displaced people
- Registered visitors for showers and handed out clean clothes of appropriate sizes and toothbrushes
- Organised donations of cash and of men's clothes to the Renewal Center from NYU Shanghai at the end of the 2014 spring semester

XLSforKids Volunteer Dance Workshop Facilitator, OKiki Kindergarten Shanghai, 2015.1-2015.5

- Set up volunteer dance workshops for kids at Okiki Kindergarten instructed by members of Xiao Long Shaker Dance Club
- Led the dance workshops with other members of NYU Shanghai XLS Dance Club to engage children in dancing, which became a traditional cooperation at Okiki Kindergarten and XLS Dance Club

Workshop Instructor, MakeForKids Shanghai, 2014.1-2015.8

- Designed and instructed Makeforkids workshops at hackspaces in Shanghai
- Educated young kids in the subject of electronics by helping them accomplish themed projects in each workshop

WORK EXPERIENCE

Legal Summer Intern, Citibank China Shanghai, 2014.7-2014.9

- Understood corporate authorization & prepared guidance notes on powers of attorney, board resolutions
- Conducted legal research on topics including Anti-Bribery Cases, Bank regulation, Company Law, Conflict of Law issues, Corporate Governance, Employment cases, Free Trade Zone, Funds Sales, Internet Banking, Litigation Case Updates, Securities Laws & Regulations

- Prepared Checklists, Guidance Notes, Transaction Summaries, FAQs & Legal Case Studies, litigation timelines & summaries
- Familiarized myself with basic Citi Products: GCG & ICG (including basis derivatives documentation)
- Conducted ad-hoc analysis and translation of legal terms
- Assisted Director of Citi Legal Department in her presentations at meetings and employee trainings

Lab Student Worker, NYU Shanghai Interactive Media Arts Lab

Shanghai, 2014.3-2015.1

- Assisted the daily management of IMA Lab;
- Assisted students in using equipment such as 3D Printers
- Provided tutoring for student hardware and software projects

WRITING & NARRATING

- Received First Prize in 2011 *SCIENCE&VIE* Adolescents Scientific Writing Competition and 5K RMB
- Received First Prize in 2009 "Hengyuanxiang Star of Literature" National Writing Competition for High School Students in China
- Published social commentaries on *Shanghai Morning Post* and many narrative essays on various juvenile literature
- Was recommended by Director of the Writing Program at NYU Shanghai as a student blogger for NYU Shanghai's official website

PUBLICATIONS & CONFERENCES

Xiaoyue Gong, "A Unified Approach to characterization of the Myerson Value and the Shapley Value Through Application of the Mobius Functions" *Courant Summer Undergraduate Research Experience Symposium*. New York, United States. October, 2016

Xiaoyue Gong, "Dye-Sensitized Solar Cells and Its Application to Sunglasses"(in Chinese). *Intel 26th Shanghai Adolescents Science&Technology Innovation Fair*. Shanghai, China. March, 2012

Xiaoyue Gong, "An Investigation of Community Disposal and Segmented Use of Alkaline Cells"(in Chinese). *Intel 26th Shanghai Adolescents Science&Technology Innovation Fair*. Shanghai, China. March, 2011

Xiaoyue Gong, "Contemplation in Boisterousness"(in Chinese). *Science&Vie*. Shanghai: Shanghai Art and Literature Publishing House. January, 2011. Print.

*Social commentaries published on *Shanghai Morning Post* and narrative essays published on various juvenile literature (in Chinese) are not listed here.

The Youth Assembly at United Nations United Nations Headquarters, New York 2016.8

Deloitte Consulting NYU Emerging Leaders Conference Deloitte, New York 2016.4

Forté College Fast Track to Finance Conference Citi, New York 2016.3

Tsinghua University Innovation Summer Camp Tsinghua University, Beijing 2011.8

High School Model United Nations Conference National Taiwan University, Taipei 2011.7

ATHLETICS & ARTS

Soccer: Midfielder in NYU Shanghai Women Soccer Team

Basketball Shooting Guard in NYU Shanghai Woman Basketball Team

Dance: Co-founder&Vice President of NYU Shanghai Xiao Long Shaker Dance Club; Beijing dance Academy Chinese Dance Level Eleven;

Sample Performance: Youtube keyword: "Moonlight contemporary Chinese Xiaoyue Gong".

Taekwondo: Former athlete of Zhabei District Gymnasium in Shanghai

Volleyball, Piano, Sketching, Soldering

OTHER LANGUAGES

Mandarin: native; **Wu:** native; **French:** elementary.