

Sabina W. Chen

US CITIZEN

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EDUCATION

Massachusetts Institute of Technology (MIT)

Cambridge, MA

Candidate for Bachelor of Science in Electrical Engineering and Computer Science

June 2019

- Relevant Coursework:

Robotics: Science & Systems, Engineering Interactive Technologies, Computer System Engineering, Electronics Project Laboratory, Intelligent Multimodal User Interfaces, Artificial Intelligence, Deep Learning Practicum, Linear Algebra, Differential Equations

EXPERIENCE

NASA Jet Propulsion Laboratory (JPL)

Pasadena, CA

Mars 2020 System Testbed Engineering Intern

June 2018 – August 2018

- Scripted tools to automate tasks on the testbed; Converted 60-page paper procedural document to automated unit tests on Jupyter
- Verified and validated avionics system level requirements, i.e. cruise flight software builds for entry, descent, and landing

NASA Goddard Space Flight Center (GSFC)

Greenbelt, MD

Satellite Robotics Engineering Intern

January 2018 – February 2018

- Wrote and performed system acceptability test procedures for Satellite Servicing Projects Division's outreach robots
- Developed a MATLAB tool to calculate the relative pose of various robotic structures for up to 10 frames of reference

Japanese Aerospace Exploration Agency (JAXA)

Kanagawa, Japan

Spacecraft Engineering Intern

June 2017 – August 2017

- Integrated Simultaneous Localization and Mapping (SLAM) technologies for monocular and stereo cameras into lab's robotic rover
- Collaborated with team to improve rover's motion planning capabilities for planetary surface exploration missions

VIA Technologies Inc.

Taipei, Taiwan

System Integration Intern

May 2016 – July 2016

- Used JavaScript, Facebook API, Weibo API, and other web development tools to implement an interactive, web-based user interface
- Developed an online website to increase user-product interaction in a Smart Home device

LEADERSHIP

MIT Department of Electrical Engineering and Computer Science

Cambridge, MA

Lab Assistant for 6.141 Robotics: Science and Systems

February 2018 - Present

- Collaborates in design and implementation of lab projects that covers an overview of algorithmic principles for autonomous vehicles
- Hosts weekly lab sessions and office hours; guides student teams in executing advanced algorithms on complex robotic platforms

MIT Figure Skating Club

Cambridge, MA

Membership Secretary and Webmaster

March 2017 – Present

- Oversees club membership and dues, and maintains communication between MITFSC and the U.S. Figure Skating Association
- Regularly updates club website to keep current and new members up-to-date with relevant club information

Professional Figure Skater

October 2003 – Present

- 2014 US Figure Skating Gold Medalist in Free Skate & Moves in the Field
- 2011 Taiwan Novice National Figure Skating Champion

MIT Association of Student Activities

Cambridge, MA

President

April 2016 – October 2017

- Administered over 500 student groups on campus regarding groups' recognition, funding, advertising, and space allocations
- Facilitated communication amongst MIT student groups, Undergraduate Association (UA), and Graduate Student Council (GSC)

PROJECTS

FoldIt AI, *Trained a network to fold protein structures into stable configurations by minimizing total molecular energy*

Adaptive Accessories, *Designed earrings that change shape according to the physical state of the user*

AirPong, *Implemented visualization and tracking of real-world pong game via FPGAs, chroma keying, and machine vision*

SKILLS

Programming: Python, Java, Verilog, JavaScript, HTML, CSS

Software: Git, Linux, ROS, RViz, Gazebo, LaTeX

Languages: Mandarin Chinese (native), Japanese (proficient)

Activities: Anime on Ice, Baking, Dancing, Hiking, Guitar