

Brian Shaoen Ma

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EDUCATION

COLGATE UNIVERSITY, Hamilton, NY, USA

May 2021

- Bachelor of Arts – (GPA: 3.42) (Pre-Engineering Track) Major: Physics; Minor: Mathematics
- (Planned) Extended Study to Azerbaijan and Uzbekistan (SOSC 210 “Oil and Water”) (Summer 2018)

DULWICH COLLEGE BEIJING, Beijing, China

May 2016

- International General Certificate of Secondary Education (IGCSE) and International Baccalaureate (IB) curriculum

TECHNOLOGY EXPERIENCE

Faculty Research Assistant, **COLGATE UNIVERSITY HCI LAB**, Hamilton, NY, USA

Spring 2018 –Present

- Co-developed a video-sharing web service using HTML, CSS, and JavaScript.

Research Intern, **TSINGHUA UNIVERSITY X-STUDIO**, Beijing, China

Fall 2016-Spring 2017

- Completed, debugged, and finished major component of an interactive storybook written in Unity that connects to a capacitive device able to provide haptic/textural feedback within a 3-day deadline. Learned to use Microsoft Foundation Classes, Unity inter-process communication, and C++ inter-process communication within that timeframe. Successful completion within deadline and demonstration in front of exhibition visitors.
- Collaborated with a Masters student to build an interactive device that tracks user input on a surface using temperature changes and a game designed for the device. Implemented particle system, parts of game logic, and Arduino code for heating/cooling tools. Used C++ OpenFrameworks library, XBee wireless communication, and OpenCV library. Produced and co-authored a paper that was submitted to the ACM Journal of Computing and Cultural Heritage.
- Participated in numerous other projects. Edited grammar of 10+ papers in support of publication efforts and participated in design of user studies.

Programmer, **CYDESIGN LTD**, Beijing, China

Summer 2017

- Brought in by recommendation to debug and implement Kinect gesture control on a motion controlled robotic arm controlled via the internet. Used C# with Unity3D and Microsoft Kinect SDK.
- Result exhibited to the public at “Global Artificial Intelligence Summit Forum & Launching Ceremony of China (Hangzhou) Artificial Intelligence Town” as an official business exhibitor.

LEADERSHIP EXPERIENCE

IT Representative, **Student Government Committee on Information Technology** – Colgate University

Fall 2017 –

- Elected by democratic vote.

President, **Raspberry Pi Club** – Dulwich College Beijing

Fall 2013 – Spring 2014

- Founded club and organised lessons using Raspberry Pi computers to teach python, circuits, and electronics.

Director of Graphic Design, **Marketing Club** – Colgate University

Fall 2017 –

- Created marketing material for various events on campus as well as conducting workshops on Photoshop and Illustrator.

Director, **Student Council Marketing Department** – Dulwich College Beijing

Spring 2014 – Fall 2015

- Led marketing department in which students made marketing material for student council sponsored events.

OTHER EXPERIENCE

Lampert Associate, **Lampert Institute** – Colgate University

Fall 2017 –

Assistant Archaeological Illustrator, **Department of Anthropology** – Colgate University

Fall 2017

ONLINE COURSES

“The Data Scientist’s Toolbox”, With Distinction – Coursera, Johns Hopkins University

“Introduction to Mathematical Thinking” – Coursera, Stanford University

SKILLS

Programming Languages: C#, C++, Java, JavaScript, Python, R, MATLAB, Processing

Technology: Adobe Photoshop, Illustrator, InDesign, After Effects, Premier Pro, Microsoft Excel, NewTek Tricaster, HTML/CSS, Wordpress, Google Sites, Unity, Unreal Engine, Kinect SDK, Hololens SDK, Optris Pi SDK, Zigbee, MFC, OpenFrameworks, OpenCV, OpenGL, PhoneGap, Circuit Design, 3D Printing, Lego Robotics, Teensy, Arduino, Scikit Learn, Git

Languages: English (Fluent), Mandarin (Fluent), Hebrew (Basic), Hungarian (Basic)