Bridget Tan

Electrical & Computer Engineering student interested in signal processing

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA
Master of Science in Electrical and Computer Engineering — Expected in Dec 2020
Bachelor of Science in Electrical and Computer Engineering — May 2019
Minor in Audio Engineering
Cumulative GPA: 3.54/4.33

SKILLS

Programming: MATLAB, Python, C, C#, LaTeX, HTML, CSS, Assembly (ARM and x86)
Software: Git, Bash, Unity3D, Solidworks, Audacity, Photoshop, Illustrator, Pro Tools, Microsoft Office, G Suite
Hardware: Arduino, Raspberry Pi
Spoken Languages: English, Mandarin Chinese, Spanish

RELEVANT COURSES

Graduate Coursework:
Computer Vision, Introduction to Machine Learning, Image and Video Processing, Introduction to Computer Music, Speech Recognition and Understanding

Undergraduate Coursework:
Electroacoustics, Fundamentals of Signal Processing, Mechatronic Design, Introduction to Embedded Systems, Physics of Musical Sound, Fundamentals of Control, Speech Processing

WORK EXPERIENCE

AB Tech, Carnegie Mellon University
Student Technician — Oct 2015 – Present
- Managed logistics and coordinated event plans with clients and vendors while staying on budget
- Executed sound, lighting, rigging, and production and stage management for the university's community

Open Learning Initiative, Carnegie Mellon University
Assistant Course Developer — Jun 2019 – Dec 2019, Mar 2020 – Present
- Developed and maintained engaging course workbooks for online courses

RESEARCH EXPERIENCE

Infant Language and Learning Lab, Carnegie Mellon University
Research Programmer — May 2017 – Sep 2018, Summer 2019
- Developed a pipeline to analyze correlation in NIRS data by utilizing the AnalyzIR Toolbox in MATLAB
- Worked on a team of six to design and program video games promoting cognitive engagement and physical activity, which enhanced cognitive control and school readiness skills in prekindergarten children
- Adapted a computer application to assess attention in infants for investigating early markers of ADHD

PROJECTS

Toy Camera, Carnegie Mellon University — Feb 2020
- Fabricated a toy camera made of laser cut acrylic, 3D printed parts, and electronics with a team of 3

Nyquist Chiptune (8-Bit) Effect, Carnegie Mellon University — Fall 2019
- Created a chiptune effect library using Nyquist, a sound synthesis and composition language

Language ID with Universal Phone Recognizer, Carnegie Mellon University — Fall 2019
- Collaborated with two partners to design a language identification system with over 85% accuracy for English, German, and Mandarin Chinese speech using phones for identification

Window Washing Robot, Carnegie Mellon University — Spring 2019
- Constructed, with a team of five, an autonomous robot that adheres to and cleans a window in 3 minutes

LEADERSHIP

AB Tech, Carnegie Mellon University
Co-*Head of Tech, Executive Board Member/Officer* — May 2019 – May 2020, May 2017 – Present
- Directed an organization of over 30 students to provide professional-grade entertainment production
- Conducted professionally with event organizers to plan and run hundreds of successful events every school year
- Led recruitment and training sessions to teach members technical production skills