Bridget Tan

Electrical & Computer Engineering student at Carnegie Mellon University

240-370-4493
bridgett@andrew.cmu.edu
www.linkedin.com/in/bridget-tan

EDUCATION

Carnegie Mellon University, Pittsburgh, PA
Master of Science in Electrical and Computer Engineering — Expected in December 2020
Bachelor of Science in Electrical and Computer Engineering — May 2019
Minor in Audio Engineering
Cumulative GPA: 3.49/4.33

SKILLS

Programming: MATLAB, Python, C, C#, LaTeX, 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 COURSEWORK

Graduate Coursework:
  Computer Vision (In Progress), Introduction to Machine Learning (In Progress), 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

WORK EXPERIENCE

AB Tech, Carnegie Mellon University
Student Technician — October 2015 – Present
- Supervised personnel to provide technical support for events including a 2000-person tent and around campus for Carnegie Mellon University's 2019 Orientation
- Managed logistics and worked with clients to draft technical plans for their events while staying on budget
- Devised production schedules and coordinated efforts between vendors and production crews to ensure reliable and timely project completion
- Executed sound, lighting, rigging, and production and stage management for the university's community

RESEARCH EXPERIENCE

Infant Language and Learning Lab, Carnegie Mellon University
Research Programmer — May 2017 – September 2018, Summer 2019
- Developed a pipeline to analyze correlation in NIRS data by utilizing the AnalyzIR Toolbox in MATLAB
- Designed and programmed video games, which promote cognitive engagement and physical activity to enhance cognitive control and school readiness skills in prekindergarten children, with a team of 6
- Adapted a computer application to assess attention in infants for investigating early markers of attentional dysfunction and potentially diagnosing ADHD in infancy

PROJECTS

Nyquist Chiptune Effect, Carnegie Mellon University — Fall 2019
- Created a chiptune effect using Nyquist, a sound synthesis and composition language
- Wrote a library for changing audio into chiptune and mixing the original and chiptune sounds

Language ID with Universal Phone Recognizer, Carnegie Mellon University — Fall 2019
- Collaborated with a team of 3 to design a language identification system with over 85% accuracy for English, German, and Mandarin Chinese speech using phones for identification
- Implemented system and baseline with Python and Google Colab

Window Washing Robot, Carnegie Mellon University — Spring 2019
- Constructed with a team of 5 an autonomous robot that adheres to and cleans a window in 3 minutes
- Built and tested electronic and mechanical subsystems to complete project tasks

LEADERSHIP

AB Tech, Carnegie Mellon University
Co-*Head of Tech, Executive Board Member* — 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