Jessica Peng

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Education

Columbia University, *School of Engineering and Applied Sciences* New York, NY
GPA: 3.943/3.341, 3.637 avg
Major: Computer Science, **Concentration:** Economics Expected Graduation: May 2022

Lynbrook High School San Jose, CA
GPA: 4.0 *Unweighted*/4.33 *Weighted* Graduation: May 2018

Experience

1st Place IBM Call for Code Challenge Manhattan, NY
Winner of IBM AngelHacks Developer Challenge June 2019
-Created application RESP: an extension of a first responder's toolkit in the aftermath of a natural disaster toolkit to reconnect victims with family and administer psychological first aid adhering to the World Health Organization guidelines
-Designed the UI/UX for the mobile application and programmed frontend with Django REST Framework and React
-integrated IBM Watson and custom logistical regression classifiers with machine learning trained on post-disaster psychiatric data

Engineering Without Borders: Uganda, Columbia University New York, NY
Executive Board, Tech Team September 2018 – Present
-Created plan to install renewable energy micro-grid to provide electricity to schools, health centers, and businesses
-Designed electrical setup on AutoCAD and calculated estimates for power usage in trading center and load sizing
-Planned NYC Regional EWB Conference, coordinated E-board events for members, maintained alumni listserv

CU Game Development Club, Columbia University New York, NY
Blockathon Project Team
-Programmed minimalistic-paradox game on Unity with a collaboration of 6 members
-Coded hidden triggers in game to coordinate advancements in level and synchronize lighting and sound
-Created level design plans with varying difficulty and different movement and obstacles obstacles in game

The Center for Augmented Cognition, University of California Berkeley Berkeley, CA
Collaborative Human-Robot Interface Researcher June – September, 2018
-Tested one-on-one enhanced reality interaction in 4 settings: reality, hologram, 2D, and virtual reality
-Designed avatars on Maya Autodesk for virtual interview
-Implemented virtual and hologram environment with VRChat

Harvard Medical School, Brigham and Women's Hospital Boston, MA
Research Intern June – August, 2017
-Developed patient-specific 3D physical phantoms for robot-guided needle-insertion biopsy using MRI data
-Created organ and tissue molds on SolidWorks and 3D printed cast
-Programmed tumor segmentation algorithms with python into Slicer

Projects

Knee Brace with Inertial Based Controllers for Knee Injury Prevention, Lynbrook High School San Jose, CA
Synopsys Science Fair Competitor, 3rd Place Winner September 2016 – March, 2017
-Built a knee-brace with sensors that detects knee abductions to prevent knee-injury and ACL-tearing in athletes
-Coded algorithms with sensorial data to translate into risk or non-risk knee abduction results for the patient

iOS App Developer: iBounce iOS Application, University of California Irvine Irvine, CA
Programmer June – August, 2017
-Synthesized various musical sounds using ChucK
-Programmed iOS application in Swift which utilizes physical modeling of sound to create musical compositions

Technical Skills

Coding languages: Python, Java, TensorFlow, C*, C++, React, HTML, CSS, JavaScript, Swift (iOS), ChucK
Software: SolidWorks, CAD, Maya Autodesk, Slicer, Excel, Premiere Pro