Jessica Peng

jp3864@columbia.edu • (408) 981-4739 • 70 Morningside Dr. 9970 Wien Student Mail New York, NY 10027 •
https://www.linkedin.com/in/pengjessica • https://www.github.com/jessicapeng

Education

Columbia University, *School of Engineering and Applied Sciences*   New York, NY
GPA: 3.637, **Honors** Dean's List
Major: Computer Science   Expected Graduation: May 2022

Lynbrook High School   San Jose, CA
GPA: 4.0 *Unweighted*/4.33 *Weighted*, ACT: 35   Graduation: May 2018

Experience

Digital Visual/Multimedia Lab and Tow Center for Digital Journalism, Columbia University   New York, NY
AI Research Intern   June 2019-Present
-Built AI models to correctly identify extremist group symbols in protest data to provide a real-time informative tool for photo journalists to analyze the resurgence of right and left winged groups
-Trained Faster RCNN object detection models on Open Image Dataset to detect crisis symbols in high risk objects
-Augmented training data in Blender and wrote script to randomize wind speed, lighting, camera angle, to create data
-Integrated python library PIL to paste augmented data with masks into UCLA protest images to train model

1st Place IBM Call for Code Challenge   New York, NY
Winner of IBM AngelHacks Developer Challenge   June 2019
-Created application RESP: A first responder's toolkit in the aftermath of a natural disaster to reconnect victims with family and administer psychological first aid adhering to the World Health Organization guidelines
-Built custom logistical regression classifiers and integrated IBM Watson's machine learning library trained on post-disaster psychiatric data
-Programmed facial recognition models and user database for logging found family members into catalog
-Designed the UI/UX for mobile application and programmed frontend with Django REST Framework and React

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 interviews during experimentation
-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 real-patient MRI data
-Created and tissue molds on SolidWorks to 3D print and tested Young's Modulus of various skin-imitation materials
-Programmed segmentation models to separate tumor from other organs on Slicer MRI

Leadership/Activities

Engineering Without Borders: Uganda, Columbia University   New York, NY
Executive Board Member, Tech Team   September 2018 – Present
-Served on E-Board and organized travel teams, voted on legislation, planned NYC Regional EWB Conference, coordinated E-board events for members, and maintained membership listserv
-Created plans to install renewable energy micro-grids to provide electricity to schools, health centers, and businesses

Orchesis, CU Momentum, Columbia University   New York, NY
Dance Teacher and Choreographer   September 2018 – Present
-Choreographed dances and taught an artistic urban-hip hop piece for the annual Orchesis Dance Showcase and taught monthly dance workshops for CU Momentum's beginner/intermediate dancers

Skills

Programming languages: Python**,** TensorFlow, Java, C++, C*, React Native, HTML, CSS, JavaScript, Swift (iOS)
Software: CAD, SolidWorks, MATLAB, Blender, Maya Autodesk, Slicer MRI, Excel, Arduino, Premiere Pro, Photoshop
Languages: French (intermediate), Chinese (fluent)
Interests: Dance, Track and Field, Ultimate Frisbee, Philosophy, Photography and Cinematography, Poetry