

Jessica Peng

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Education

Columbia University, School of Engineering and Applied Sciences

New York, NY

Major: Computer Science

Expected Graduation: 2022

GPA: 3.7 **Honors** Dean's List, ACT: 35

Professional Experience

Digital Visual/Multimedia Lab and Tow Center for Digital Journalism, Columbia University

New York, NY

Computer Vision 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 right and left winged groups in protests and rallies
- Trained Faster RCNN object detection models on Open Image Dataset to detect crisis symbols in high risk objects
- Augmented training data in Blender with scripts on wind speed, lighting, camera angle, and pasted new data with PIL library

Co-founder of RESP, 1st Place IBM Call for Code Challenge

New York, NY

Winner of IBM Angel Hacks Developer Challenge, Startup Co-Founder

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 facial recognition function and created user database for identifying found family members into catalog
- Designed the UI/UX and created frontend with Django REST Framework and React, and programmed backend with custom logistical regression classifiers with IBM Watson's ML library trained on post-disaster psychiatric data

ENGI1006 Instructional Assistant, Columbia University

New York, NY

Instructional Assistant

August 2019 – Present

- Teach and assist 200+ students in ENGI 1006 – Python Introduction to Computing for Engineers and Applied Scientists
- Host office hours, grade labs and exams, proctor exams, write problem sets and exams

Alinea Invest Blockchain Startup

New York, NY

Web Developer, Software Engineer

June 2019-Present

- Programmed the entire frontend platform for Alinea Invest Blockchain startup in HTML, CSS, JavaScript, and PHP

UC Berkeley: The Center for Augmented Cognition, University of California Berkeley

Berkeley, CA

Collaborative Human-Robot Interface Researcher

June – September, 2018

- Tested the effectiveness of one-on-one enhanced reality interaction in 4 settings: reality, hologram, 2D, and virtual reality
- Designed avatars on Maya Autodesk for virtual interviews and implemented virtual and hologram environment with VRChat

Personal Projects

Knee Brace with Inertial Based Controllers Approach to Knee Injury

San Jose, CA

Synopsys Science Fair Competitor, 3rd Place Winner

September 2016 – March, 2017

- Built a knee-brace and coded algorithms into sensors that detects knee abductions to prevent knee injury in athletes

iBounce: iOS Application

Irvine, CA

Group Lead, Programmer

June 2015-August 2015

- Programmed iOS application in Swift which utilizes physical modeling of sound in game to create musical compositions

Leadership and Activities

Engineering Without Borders: Uganda, Columbia University

New York, NY

Executive Board Member, Tech Team

September 2018 – Present

- Served on E-Board and planned NYC Regional EWB Conference, organized travel teams, and voted on legislation
- 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 and taught urban hip-hop for Orchesis and CU Momentum and did dance collabs with videographers

Skills

Programming languages: Python, TensorFlow, Java, C, C++, C*, React, HTML, CSS, JavaScript, Swift, SQL, Ruby

Software: CAD, SolidWorks, MATLAB, Blender, Maya Autodesk, Slicer MRI, Excel, Arduino, Premiere Pro, Photoshop

Languages: French (intermediate), Chinese (fluent) **Skills/Interests:** Blockchain, Dance, Product Design, Film, Poetry