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: 3.73 **Technical GPA:** 3.85 **Honors** Dean's List, **ACT**: 35
Coursework: Java, Python, Data Structures, C, Natural Language Processing, Javascript, Linux Development Tech

Professional Experience

Incoming Software Engineer	Cupertino, CA
Apple	May – August 2020

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
-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 in HTML, CSS, JavaScript, and PHP for business platform in order to build a target market, sell products, and increase publicity and awareness

UC Berkeley: 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 and implemented virtual, hologram environments with VR headset in 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

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