Jeremy Wang

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EDUCATION

Cornell University CALS   **Ithaca, NY**
Bachelor of Science in Biological Engineering, Minors in Music and Computer Science   Spring 2021
Masters of Engineering in Operations Research and Information Engineering   Fall 2021
- **Relevant Coursework:** Advanced Machine Learning Systems, Object-Oriented Programming & Data Structures, Computer System Organization, Operating Systems, Foundations in Data Science, Analysis of Algorithms, Advanced Topic Modeling, Mechatronics, Dynamic Models in Biology, Design & Analysis of Biomaterials, Heat and Mass Transfer, Biochemistry, Molecular & Cellular Bioengineering

WORK & LEADERSHIP EXPERIENCE

Cquence   **New York, NY**
Data Science Intern   May'20 – Aug'20
- Fine-tuned **CNN** model using Resnet architecture to classify shots in movies with 93% accuracy in **PyTorch**
- Created and cleaned 10K large image datasets from scrapping videos using **FFMPEG, Pandas,** and **AWS S3**
- Implemented and experimented with object detection, image segmentation, and video classification models from the latest computer vision papers

Cornell University Biological Engineering Department: Ma Laboratory   **Ithaca, NY**
Undergraduate Researcher   Jan'20 – Aug'20
- Designed **COMSOL** model to study oxygen transfer for a medical device using Michaelis Menten Kinetics
- Optimized shape and shape parameters of implanted capsules and cylinders for fibrotic response
- Performed sensitivity analysis and mesh convergence test to validate and access model

Cornell University Biological Engineering Department: Jung Laboratory   **Ithaca, NY**
Undergraduate Researcher   Jan'19 – Aug'19
- Designed autonomous light-sensing robot using Arduino Mega 2560 microcontroller and Adafruit motor
- Implemented greedy sorting algorithm to maximize resource collection for the 2019 International ASABE Robotics Student Design Competition

Rutgers Center for Computational and Integrative Biology   **Camden, NJ**
Research Experience Undergraduate   May'18 – Aug'18
- Enhanced mathematical model for starling birds by introducing shape parameter to mimic observations and cleaner UI in **MATLAB**
- Automated data mining on 32 videos by developing **ImageJ** plugins to analyze trends and compute velocity of information transfer within rising flock in **Java**
- Received Best Poster Presentation Award and presented at the 2018 Mathematical Biology Institute Capstone

Engineering Career Fair Team (ECaFT)   **Ithaca, NY**
Logistics Co-Director   Sep'17 – Present
- Co-manages the Engineering Career Fair Team website by working in front-end development and presenting information for students and employers using **HTML/CSS**
- Managed as sole project manager for the spring career fair in 2019 with 150 companies by assigning tasks to a team of two undergraduates with a budget of $50,000

SKILLS, ACTIVITIES & INTERESTS

Technical Skills: Python (Proficient), MATLAB (Proficient), Julia (Proficient), Java (Proficient), R (Proficient), SQL (Proficient), Arduino (Proficient), HTML/CSS (Familiar), C (Familiar), OCaml (Familiar)
Interests: 10 years of professional classical piano and violin training, 4 years experience as orchestral conductor