

ARELY BROOKE PECKHAM

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New York City

WORK EXPERIENCE

CORNELL TECH-NYC FIRST LEADERSHIP PROGRAM: Learned from industry experts • Taught robotics & FIRST values to H.S. students & coaches • Designed, CADed, prototyped, & delivered an innovative portable soldering station • Supervised STEM Center Maker Lab open sessions • Led 3D Printing, Fusion360 & Laser Cutting Workshops.

J.R. WYATT LAW FIRM: Statistical analysis & data visualization of 400+ neuropsychological exams revealed race-based disparities in NFL Concussion Settlement testing norms • Findings pivotal to Civil Rights case resulting in hundreds of Black players receiving denied benefits.

PROFESSIONAL THEATRICAL, COMMERCIAL & VOICEOVER ACTOR: Co-lead in SAG-AFTRA film, *Miriam's Cup (in post)*, as Arelly Wyatt.

NYC-FIRST ROBOTICS: Emcee NYC FIRST tournaments • Combine knowledge of FIRST values with technical & theatrical experience to create an educational, safe and welcoming environment • Tournament Pit Operator & CAD/Tech Support • Community Center Team Mentor.

COMMUNITY ENGAGEMENT

RUCKUS CONSTRUCTUS: Sole student-advisor for 1700+ person **experiential STEAM symposium's** Innovation, Climate Change, and Global Connectivity content • Spearheaded multi-campus student-organized post-pandemic event reboot • Established learning outcomes, recruited sponsors, oversaw content & communications & setup.

FTC SEASON LAUNCH EVENT & WORKSHOPS: Co-planned NYC FIRST's invitational live-streamed 30-hour **rapid robot prototype event** • Led FTC Champion team to successfully ideate & engineer challenge solutions • **Designed & led public workshops** (3D printing & converting 3D objects into 2D slices for laser-cutting).

NYC FIRST CONNECT, ACQUIRE, NURTURE ("CAN"): Conceptualized & collaborated to develop a multi-lingual digital platform to complement STEM Center efforts to increase access to mentoring, networking, and STEM skills acquisition for 400+ NY teams/6000+ students.

MODEL UNITED NATIONS REGIONAL CONFERENCE: Organized, hosted three AVEMUN Conferences (event structure & integrity, topic selection, committee design, committee Chair, and communications).

NYC E-WASTE DRIVE: Researched NYC procedures for collecting, donating & recycling e-waste • Partnered with NYC's Dept. of Sanitation, local politicians, media, and NYC FIRST to develop a city-wide challenge to local organizations to implement an annual e-waste collection drive.

CHELSEA GREEN ROOF & COMMUNITY FRIDGE PROJECTS: Researched, designed & planted a fully-functional sustainable educational vegetable and herb garden & launches a community fridge.

FUNDRAISING: Raised over \$4,800 for Climate Spending Campaign, and \$2000 for Ukrainian robotics team.

SKILLS

Audio & Video Production: Audacity • Adobe Premier Pro • Final Cut Pro • Stop Motion.

Bilingual: English & Mandarin

Coding: Advanced Python Fluency • Code Mods • JAVA Proficiency • R Proficiency.

Graphic & 3D Design: Adobe Fusion, Illustrator & Photoshop • Bambu Slicer • Blender • OnShape • Prusa Slicer • PronterFace • TinkerCAD.

Machinery: 3D Printer • CNC • Cricut • Drill Press • Laser Cutter • Metal/Miter Saws • Routers.

Communications, Event Planning & Social Media

Technical Research and Writing & Engineering Portfolios

EDUCATIONAL TOOLS (select)

ODYSSEUS'S JOURNEY: Designed & fabricated a large-scale 3D-printed **interactive topographic map** as an educational tool for students with diverse learning needs • Utilized literary references, historical maps, ocean mechanics, and climate records to track Odysseus's physical journey and interactions.

THE HISTORIC HOME: Created a **large-scale laser-cut wood dollhouse as hand-on interactive educational tool** • Each room a distinct seminal period in U.S. History, through architecture, significant events, resources, figures, and cultural & technological milestones.

EDUCATION

UNIVERSITY OF SOUTHERN CALIFORNIA Iovine & Young Academy: Arts, Technology & the Business of Innovation (Class of 2029).

AVENUES THE WORLD SCHOOL (H.S. 2025) Mastery Program: Accelerated interdisciplinary project-based program challenging students to examine complex academic questions.

Global Journeys: Artificial Intelligence (*Silicon Valley*) • Chinese Cultural Immersion (*Chengdu*) • Environmental Stewardship (*New Orleans*) • Urban Japan (*Kyoto*) • Diplomacy (*Washington, DC*).

OXFORD UNIVESITY, Sustainable Engineering & Architecture (Summer 2023)