

Janna Wang

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Education

Duke University: B.S. in Mechanical Engineering, B.A. in Comp. Sci. Minor in Visual Media Studies	Aug 2023 – Present
Stuyvesant High School	Sep 2019 – Jun 2023

Experience

Amgen	Jun 2025 – Aug 2025
Operations Engineering Intern	Thousand Oaks, CA
<ul style="list-style-type: none">Coordinated with 20+ stakeholders (system owners, schedulers, QA) to identify inefficiencies in 1000+ asset production linesUsed analytic & visual tooling (Power BI, Excel, Maximo) to redesign maintenance workflows, reducing downtime by 8%Developed automated Smartsheet dashboards to track regulatory compliance and enhance operational visibilityOptimized scheduling infrastructure by integrating live asset data and standard logic fields to improve clarity and usability	
UnlockedMaps	Jun 2025 – Aug 2025
<ul style="list-style-type: none">Conducted platform-wide UX audit to implement UI enhancements, improving navigation and visual clarity across the siteBuilt WMATA transit API integration to launch Washington DC market and enable live transit data for DC usersRedesigned city directory interface with improved information architecture and search functionality	
Research Assistant, Duke Acoustofluidics Lab - Durham, NC	Dec 2023 – June 2025
<ul style="list-style-type: none">Designed droplet-splitting acoustofluidic device to sort and detect particles (e.g. biomarkers) using AutoCADFabricated lab-on-a-chip devices with microfluidic channels, integrated wiring, and IDTs for acoustic manipulationConducted multi-technique experiments investigating cellular interactions, sample processing, and bioparticle isolation	
Research Fellow, Duke Institute for Brain Sciences (DIBS) - Remote	May 2024 - August 2024
<ul style="list-style-type: none">Developed a MySQL database (AMPPS stack) for large-scale multimedia displays on the DIBS "Cube" building exteriorOptimized database for diverse media formats by implementing a comprehensive metadata tagging systemStreamlined data entry processes by developing automated scripts linking spreadsheets with the database	
Undergraduate Researcher, Cornell University Cira Lab - Ithaca, NY	Jun 2024 – Aug 2024
<ul style="list-style-type: none">Used Python and MATLAB to collect high-specificity data from Fenton reactions, improving reaction speed by ten-foldInvestigated workflow improvements (software to reduce processing time, techniques to mitigate sample evaporation)	
FIRST FRC Robotics Team 694: VP of Engineering, Director of Lab Operations	Sep 2019 – May 2023
<ul style="list-style-type: none">Led 50+ member engineering team to 13 competition awards through design reviews, CAD instruction, code and hardware testing, and prototyping of critical robot mechanismsManaged daily lab operations and safety training for 150+ members	

Patents & Publications

- Kaichun Yang, [...] **Janna Wang** [...], et al. "Precision Acoustofluidics for High-Throughput Mechanobiology in Suspension Cells." *Science Advances*, 12 (2026).
- Ty Naquin, [...] **Janna Wang** [...], et al. "An acoustofluidic picoinjector." *Sensors and Actuators B: Chemical*, 418 (2024)
- "Adjustable sliding tray with locking mechanism" – US Patent Application No. 29/936,005 – Date: Apr 5, 2024

Projects

Developing Modular Lunch Tray for Durham Public Schools

- Led concept-to-prototype development of modular lunch trays, coordinating CAD design, 3D-printed tooling, and CNC machining to meet client specifications
- Investigated injection molding production methods and secured grant funding for manufacturing scale-up

Accessibility Modifications of Ride-On Toy Car

- Oversaw safety and usability enhancements (rewiring to limit speed, custom 3D-printed modifications, etc.)
- Developed a secure storage solution for wheelchair attachment during car use and documented design iterations

Skills

- Software & Data Analytics:** Python, Java, MySQL, HTML/CSS, Git, Excel, Power BI, Retool, Tableau
- Product:** Agile (Scrum, Kanban), Lean Six Sigma, Roadmapping, Jira, Trello, Smartsheet, Airtable, Miro, Powerpoint
- Prototyping:** SolidWorks, AutoCAD, Fusion 360, Onshape, CNC, Arduino, Laser Cutting, 3D Printing, Hand/Power Tools
- UI/UX:** Figma, InDesign, Wireframing, User Research, Personas, Journey Mapping, Usability Testing
- Wet Lab:** Microfluidic Fabrication, Fluid Handling, Optical Analysis (Microscopy, Spectroscopy, Nanoparticle Tracking)