

Ariane Schoenwiesner

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New York University

Tandon School of Engineering

B.S. Computer Engineering

January 2022

Dual Citizen - USA & Germany

Experience

Rapid Liquid Print Co., Boston, MA

Winter 2021 – Present

Mechanical Systems Engineer

- Designed extruder system for silicone gel suspension additive manufacturing
- Developed requirements for and worked with external contractors to design and build a CNC control box
- Built a CNC machine interface using Javascript and Vue
- Developed a postprocessor in Python and C# to translate toolpath geometry into gcode
- Machined metal and plastic components on lathe and manual mill for 3d printer extruder assembly
- Configured electrical control systems for a CNC machine
- Managed documentation and training for operating a machine for a new type of manufacturing

Ocean Discovery League, (remote)

Winter 2022 – Summer 2024

Sensors and Systems Development Volunteer

- Programmed frontend (Javascript and HTML) and backend (Python, FastAPI) server for modular underwater sensor system
- Modeled and fabricated modifications to existing underwater sensor system enclosure
- Tested and integrated new cameras and single-board computers into sensor system

IBM Research, Yorktown Heights, NY (remote)

Summer 2020

Quantum Intern

- Developed puzzle game for teaching microwave pulse quantum state manipulation in Qiskit
- Measured results of experiments on IBM quantum systems using Jupyter Notebook

NYU Tandon MakerSpace, Brooklyn, NY

Summer 2018 – Summer 2021

Equipment/Innovation Lead

- Evaluated potential equipment improvement benefits
- Developed standardized projects for advanced users on online instructional platforms
- Tested prospective equipment and fabrication techniques
- Facilitated design thinking and specialized fabrication workshops

Training and Development Team Lead

- Developed guidelines and documentation for basic use trainings and machine troubleshooting
- Provided prototyping and fabrication guidance for students and faculty

Bloomberg LP/NYU Center for Quantum Phenomena, New York, NY

Summer 2019

Summer Quantum Computing Intern

- Configured experiments in Python using IBM Quantum Experience
- Manufactured laboratory experiment components using waterjet cutter
- Prototyped projects using additive manufacturing and laser cutting
- Observed nanoelectronics cleanroom fabrication protocol

Skills

Prototyping

Additive manufacturing
Laser cutting
WaterJet cutting
PCB fabrication & soldering
CAM & CNC operation
Manual mill
Lathe

Software

Fusion 360 CAD & CAM
Autodesk Eagle
SolidWorks
AutoDesk Maya
Aspire CAM
Adobe Photoshop & Illustrator

Languages

Python
Framework - FastAPI
C++
Javascript/HTML
Library - Vue
C#
Arduino