
Mary Karroqe

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Education

New York University, Tandon School of Engineering

BS Computer Science, Minor in Mathematics • May 2020, expected

Society of Women Engineers: VP of Outreach; HackNYU: Tech Committee Co-Chair

Brooklyn Technical High School

Software Engineering Major • Jun 2016

Girls Who Code; FIRST Robotics; VP of Cyber Security Club and Young Women's Leadership Club

Experience

NYU Tandon General Engineering

Brooklyn, NY

Rapid Assembly and Design (RAD) Committee Director • Aug 2018 - Present

Works closely with professors to evaluate and improve new curriculum for students. Manages 15 mentors and evaluates over 150 student applications per semester. Mentors student projects, including an interactive video game and portable guitar device, and teaches groups various rapid prototyping, software, and design skills.

Teaching Assistant • Aug 2017 - Present

Leads 3 laboratory and recitation classes of 16, teaching high school and college students introductory engineering concepts in electrical, software, civil, mechanical, and chemical engineering. Collaborates with over 100 TAs to improve student experience.

The Boeing Company

Huntsville, AL

Analytics and Decision Systems Software Engineering Intern • Jun 2018 - Aug 2018

Conducted artificial intelligence research for autonomous aircraft project. Fine-tuned convolutional neural network models that completed image classification, regression, and generation tasks. Developed pre-processing and visualization scripts using Bash and Python that merged and organized 4 public datasets of over 1,000,000 images and 9,000,000 annotations and rated effectiveness of data.

Honeybee Robotics Spacecraft Mechanisms Corporation

Brooklyn, NY

Software Engineering Intern • Sep 2016 - Jan 2017

Developed an autonomous program in Python for an in-office robot. Used ROS to create visual simulations and maps from the robot's video and sensor data using the RVIZ package and SLAM. Worked in Ubuntu and developed proficiency using the Unix terminal.

Freelance

New York, NY

Web Developer • Sep 2015 - Jun 2018

Developed responsive websites for both large and local small businesses in Wordpress CMS and Bootstrap. Implemented innovative backend solutions using Zapier and Google Drive for client convenience. Used Google Analytics data to optimize design and established strong SEO practices.

Awards

NYU General Engineering, TA of the Month • Feb 2018

National Center for Women and Information Technology (NCWIT)

Aspirations in Computing New York Affiliate Winner • Jan 2015, 2016

Aspirations in Computing National Runner-Up • Jan 2015, 2016

Skills

Python, C++, Java, HTML, CSS, JavaScript, Bash, Git, YAML, JSON, ROS, pandas, NumPy, OpenCV, Bootstrap, Wordpress, Ubuntu, Unity, Microsoft Excel, LabVIEW, Autodesk Fusion360, Autodesk Inventor, Cura, Revit
