

Liheng Cao

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EXPERIENCE

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| Alphabet - Google | 09/2024 – Present |
| Software Engineer on Stockroom/Capacity Planning | New York, NY |
| <ul style="list-style-type: none">Predict capacity usage of Google, including CloudEnabled more granular forecasts by implementing forecast segmentationExpedited and launched new forecasting data source by building dashboard and backtesting | |
| Stealth Startup | 05/2024 – 09/2024 |
| Cofounder | New York, NY |
| <ul style="list-style-type: none">Health space - Gave it a shot, but didn't work out | |
| Meta - Facebook | 08/2022 – 02/2024 |
| Software Engineer on Facebook Feed Health | Seattle, WA |
| <ul style="list-style-type: none">Efficiency: Saved \$2M in one half from CPU wins across various projects by ideating, optimizing, and experimenting.Reliability: Designed, implemented, & deployed an automatic throttling platform across Feed to auto-mitigate an entire class of reliability regressions, preventing overnight pages.Augmented internal tools to simplify workflows and increase developer velocity for identifying efficiency wins.In a tier 1 oncall, prevented major site uptime outages, user experience, and revenue regressions by live debugging. | |
| Machines in Motion Lab at NYU Tandon | 06/2021 – 05/ 2022 |
| Undergraduate Research Assistant | Brooklyn, NY |
| <ul style="list-style-type: none">Contributed to research for contact detection for legged locomotion and path integral for policy improvementAssembled, tested, and repaired robots for research and teachingDeveloped Python/C++ bindings for IMU sensor, and modified USB driver and serial reader codeOperated Vicon motion tracking system and integrated with robot motion | |
| RoboSub VIP Team at NYU Tandon | 08/2021 – 05/2022 |
| Software Team Lead | Brooklyn, NY |
| <ul style="list-style-type: none">Assigned tasks and supervised team members in motor control, vision, task planning, and localizationAs inaugural software lead, researched relevant topics and trained team, establishing the foundational processes and practices.Developed the vision and task planning of the robot to allow autonomy during the competition | |
| Robotic Design Team at NYU Tandon | 09/2020 – 09/2021 |
| Software Competency Member | Brooklyn, NY |
| <ul style="list-style-type: none">Implemented computation offloading from robot to server to reduce robot size by allowing robot-server communicationIntegrated sensor and motor data to allow robot movement | |

EDUCATION

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| New York University, Tandon School of Engineering | Brooklyn, New York |
| Bachelor of Science in Computer Science, Minor in Mathematics, Magna Cum Laude, Graduated in 3 years | 09/2019 – 05/2022 |

SELECT SIDE PROJECTS – MORE ON [GITHUB](#) AND [PERSONAL WEBSITE](#)

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| Static Site/Blog Generator (repo) | Python |
| <ul style="list-style-type: none">My blog is generated using thisInitially used Jekyll, but didn't like it, so thought it would be cool to write my ownLess features, but much easier to customize looks and behavior to my taste | |
| Character recognition neural network in the browser (demo) | Python |
| <ul style="list-style-type: none">Trained my own convolutional neural network using Pytorch on the EMNIST datasetSet up a no backend website to demo the model with a mouse cursor drawing.No backend! It's a static site! Everything runs on your browser. | |
| Cost Splitter App (demo) | JavaScript |
| <ul style="list-style-type: none">Built a Cost Splitter app from scratch using basic web dev. for my roommatesReceives name, price, and people to split amongst and outputs how much each person paysAllows roommates to split group grocery runs at Costco and restaurants | |
| SCUDEM V 2020 Differential Equations Modelling Competition (repo) | Processing |
| <ul style="list-style-type: none">Modeled and animated the physics of a bird spinning around on a bicycle wheel as a part of a 3 man teamScored the highest score (4.875/5) out of 180 other teams | |

KEY SKILLS

Languages: Python, C++, PHP, HTML, CSS, JavaScript, Rust, Golang, PyTorch, SQL

Topics: Software Engineering, Performance Optimization, Reliability, Efficiency, Latency, Machine Learning, Parallel and Distributed Systems, Robotics, Networking, Forecasting, Modeling