

Noa Samarelli

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94133, San Francisco | +1 (332) 207-7128 | Italian, French, and US Citizen



EDUCATION

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- Columbia University - MS in Mechanical Engineering with Elective Concentration in Robotics and Control** New York, NY
May 2022
- GPA: 3.91/4.0
 - *Coursework:* Data Science for Mechanical Systems, Intro to Robotics, Digital Manufacturing, Nano Optics Sensing & Actuation
- University of Birmingham - BEng in Mechanical Engineering** Birmingham, UK
July 2019
- First-class Honors Student, GPA: 4.0/4.0
 - *Coursework:* Engineering Materials, Manufacturing Systems, C Language, Mechanical Design, CFD and FEA

PROFESSIONAL EXPERIENCE

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- Cruise** San Francisco, CA
Apr 2022 - Present

Mechatronics Engineer

- Conducting comprehensive data analysis and presenting findings to inform decision-making, including supplier selection and pass/fail criteria for technology integration
- Collaborating closely with suppliers to negotiate and develop cutting-edge technologies, demonstrating strong project management skills by taking end-to-end ownership of technology acquisition project
- Managing end-to-end sensor technology development projects, encompassing research, prototyping, testing, and automation.
- Proactively devise and continually refine project-specific validation requirements, leveraging a deep understanding of sensor technology to achieve a remarkable 20% improvement in sensor validation process efficacy

Hardware Intern

May 2021 - Aug 2021

- Designed and manufactured sensor calibration stations with time optimization of 25%, cost of 3%, and accuracy of 10%
- Developed BOMs, MIs and design drawings for supplier mass scale production, resulting in 80% increase in productivity
- Collected, analyzed, and presented data and statistical analysis to assess pass or fail criteria for short ToF Lidar sensor technology

Vessel Technologies

New York, NY

Mechanical Design Engineer

Jan 2021 - May 2021

- Designed modular apartments to achieve technical solutions to global housing crisis
- Fabricated and optimized structural designs performing FEA analysis to minimize expenses and enhance user experience

Infotrading SAS

Rome, IT

Junior Engineer

Sep 2019 - Jun 2020

- Identified smart home and office products, commissioning & supporting deployment of IR, thermal, and radar microwave and radio sensing technology to combine alarm functions with automation and personalized access control

Contact Design

Hong Kong

Robotics Intern

Jun - Aug 2018

- Directed team of 3 in R&D for proof of concept for an automated 3 DOF robotic vending machine, boosting production by 11%
- Utilized Fusion 360 to create model drawings and animations for parts distributors and future investors
- Implemented low-cost sourcing strategy to achieve a cost reduction of 7% and a 10% increase in product efficiency

Polygon Technologies

Tzur Yigal, IL

Manufacturing Intern

Jul - Aug 2017

- Tested industrial manufacturing machines' final assembly to increase production speed by 3%, automated guided vehicles to improve route implementation by 2%, and drone satellites to improve underwater resistance by 1.7%
- Collaborating with Caja Robotics, implemented warehouses' automation technologies, to enhance robotic performance by 2%

ACADEMIC EXPERIENCE

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- Columbia University** New York, NY
Graduate Teaching Assistant Jan 2021 - May 2021

- Managed class of graduate students (~40) in engineering capstone project on innovative human-centered transportation methods
- Led lectures on prototyping, design fidelity and other tools to conform how well and idea resonates with stakeholders

Columbia University

New York, NY

Graduate Research Assistant

Sep 2020 - Present

- Develop breakthrough techniques for 3D food printing and cooking using blue and infrared laser technologies
- Design, optimize, and slice 3D CAD food models to allow additive manufacturing production using Solidworks and Slic3r

University of Birmingham

Birmingham, UK

Research Assistant

Sep 2018 - May 2019

- Devised robotic fingers with tactile sensing technology based on optical fiber sensors (FBG) for robotics disassembly by exploring KUKA disassembly technologies as key enabler for autonomous remanufacturing
- Refined experiment's accuracy up until FBG sensitivity of $9.103 \mu\epsilon$, concluding with overall research error of 9%

SKILLS

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- Italian (Proficient); Chinese (Intermediate); French (Intermediate); Hebrew (Beginner); Spanish (Beginner)
 - C, Python, Solidworks, Fusion 360, MATLAB, Ansys, Abaqus, Slic3r, 3D Printing, Laser Cutting, OpenSCAD, nTop, Inspire