



Brandon Bunt

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Masters student in mechanical engineering at the Cooper Union characterizing the thermal properties of mycelium as a novel thermal insulation material. Deep interest in food, permaculture, decentralization and philosophy. Currently developing IoT solutions for family farms and permaculture applications, and recycling of post-consumer plastics.

Work Experience

SUMMER STEM FACULTY – SUMMER 2023

Designed and taught a 6-week class for high school juniors and seniors that expanded on the prior's year class by doing mechanical, acoustic, and thermal testing of mycelium. A final panel design from Loisaída was accepted in August, 2023. I am currently applying for grants to fund the designing of a larger-scale manufacturing process for mycelium acoustic panels and insulation.

SUMMER STEM TEACHING FELLOW – SUMMER 2022

Designed a 3-week course that I taught twice for two groups of high school sophomores studying STEM over the summer. The course covered four key areas: mycology, the design cycle, circular economies, and acoustics. Students designed custom acoustic panels for specific locations within a local theater at the Loisaída Center. They then fabricated the molds at the Cooper Union, and grew their own mycelium panels in the lab.

AACE LAB STUDENT TECHNICIAN – JAN 2021 - PRESENT

Student Technician, serviced and fixed equipment, and aiding students on the projects they are working on. Ongoing projects include 3D-printing molds for silicone casting, designing enclosures for electronic projects, testing novel plastics, recycling failed 3D prints, and creating low-cost eye wear.

GREAT HALL ARCHIVE / PROJECT INTERN – 2019-2021

Digitized metadata on hundreds of reel tape collection of lectures given in the Great Hall at the Cooper Union to an online database. <<https://greathallvoices.cooper.edu/>>

THE JED FOUNDATION / SUMMER INTERN – SUMMER 2019

Designed a custom animation for JED to send to its national volunteer network as a method to increase email engagement and bolster their peer-to-peer fundraising initiative.

Education

The Cooper Union – Master's in Mechanical Engineering, May 2024

Project Lead of the Multi-Use Data-acquisition Bio Unit Group (MUDBUG) - mudbug.cooper.edu

The Cooper Union – Bachelors of Science and Engineering, May 2022

Minor in Philosophy, Mechanical Engineering Design Award, Benjamin Menschel Fellowship

Avenues: The World School – High School, 2018

Os Primeiros Exchange Program in São Paulo, Student Council President, Captain of Track and Field Team

Skills

Languages: Japanese, Portuguese, Spanish

Fabrication: Woodworking, FDM & SLA Printing, Laser-cutting, Embroidery, 3D scanning

Software Proficiency: Adobe Suite, various CAD, Ansys Mechanical, Fluent

Licenses: PADI Open Water Scuba Certification, Red Cross First Aid Certification 2023