



Russel Bradley

Mechanical Engineer | Manufacturing |
Computer-Aided Design | Additive Manufacturing |
Industry 4.0

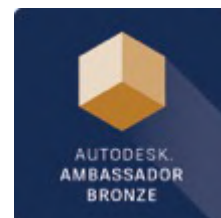
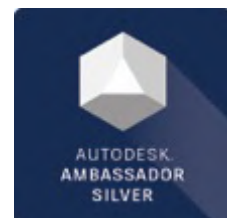
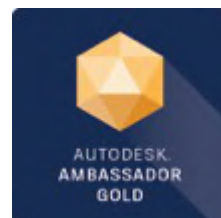
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Certifications



Internships



Automation Engineer Intern

Delivering world's
first fully automated
robotic 3D printing
production line



Fusion Catalyst Intern

Fusion 360 Campus
Evangelist

LEXIKAT

Data Analytics Algorithm Intern

Designed a text data
analysis algorithm for
Bahasa Indonesia in
Python and C++



SolidWorks Student Leader

SolidWorks Campus Evangelist

Certifications | Workshops

Teaching

ME2162: Manufacturing Processes (NUS AY20/21-S1)

TME 2162: Manufacturing Processes (NUS AY20/21-S1)

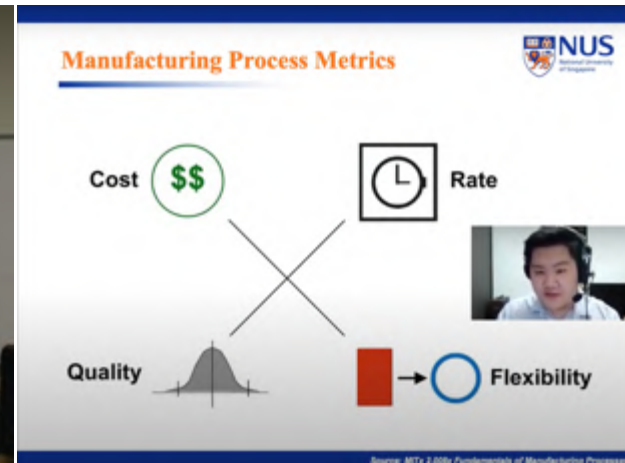
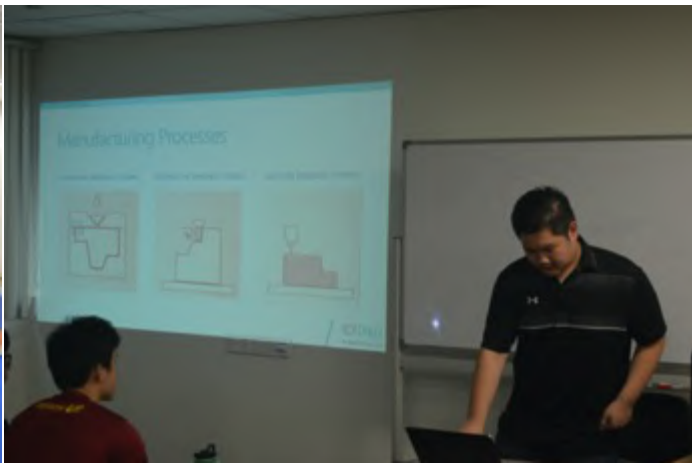
EG2301: Case Studies in Innovation (NUS AY20/21-S1)

EG1311: Design and Make (NUS AY19/20-S1)

EG2301: Case Studies in Engineering (NUS AY19/20-S1)

CS1010E: Programming Methodology I (NUS AY18/19-S2)

Other Various Workshops on CAD, 3D Printing and Manufacturing

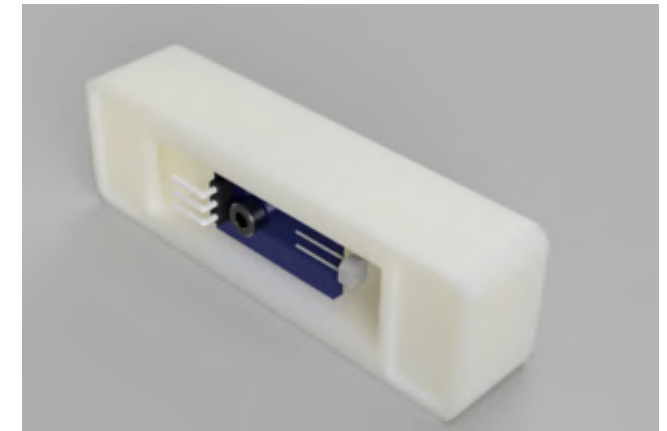


Laundry Bot

Role: Lead Mechanical Designer and Project Supervisor

- Project on automated laundry notification system implemented on one of National University of Singapore's student residences.
- The system allows residents to check on the status of the washing machines, so they would not need to go back and forth the laundry rooms to check on the machine availability

GitHub repository:
<https://github.com/RC4-LaundryBot/nuscollegelaundrybot>

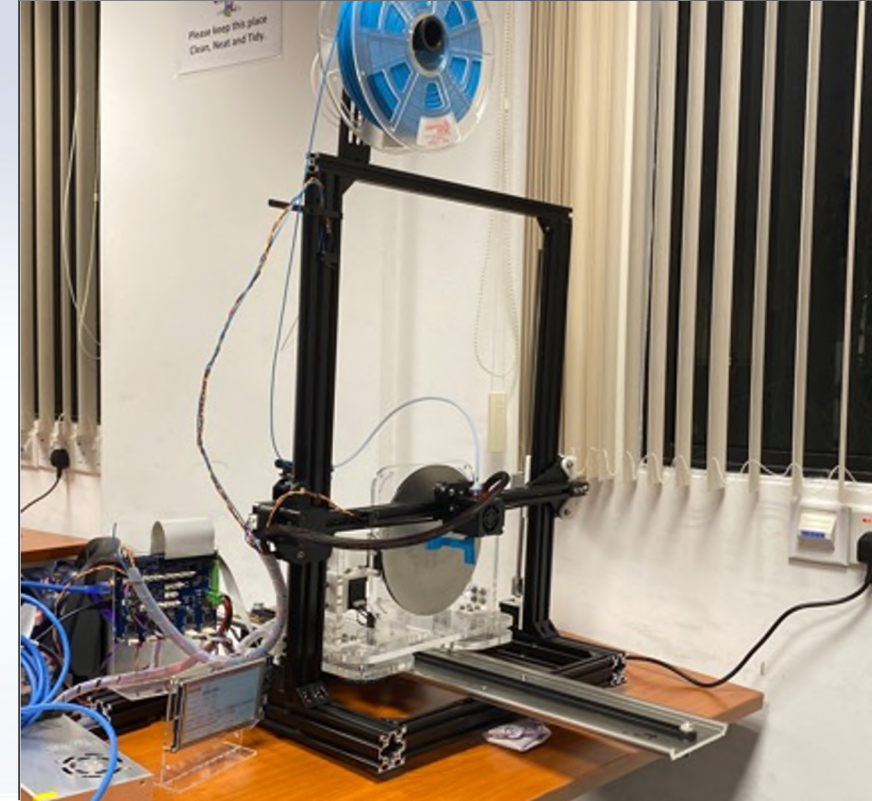
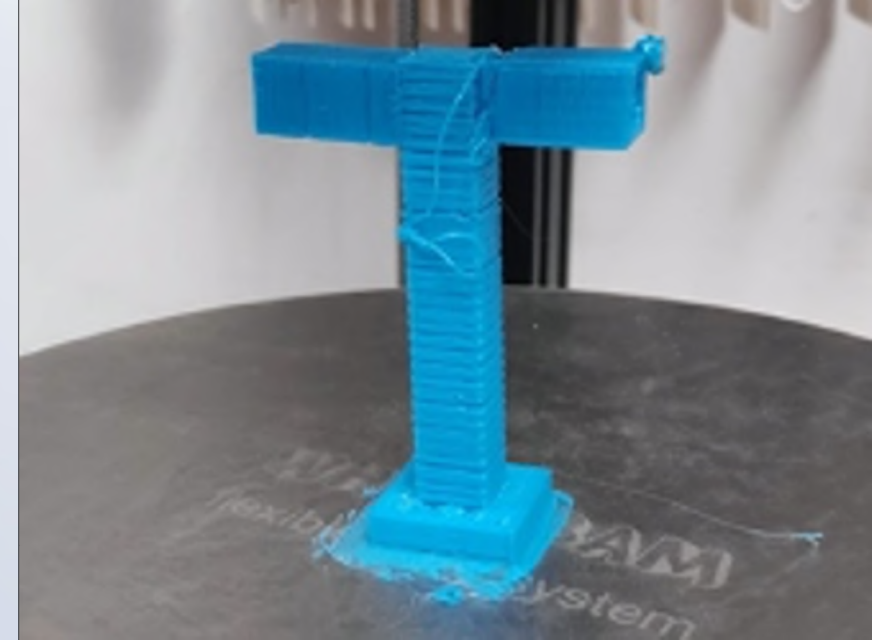


5 Axis FDM 3D Printer

Role: Project Lead and Mechanical Designer

We aim to remove the need for support structures in FDM 3D printing by enabling part reorientation in FDM 3D Printing. In addition to that, it is possible to eliminate anisotropy of the part.

Video Link: <https://youtu.be/syLM8uPM0SI>

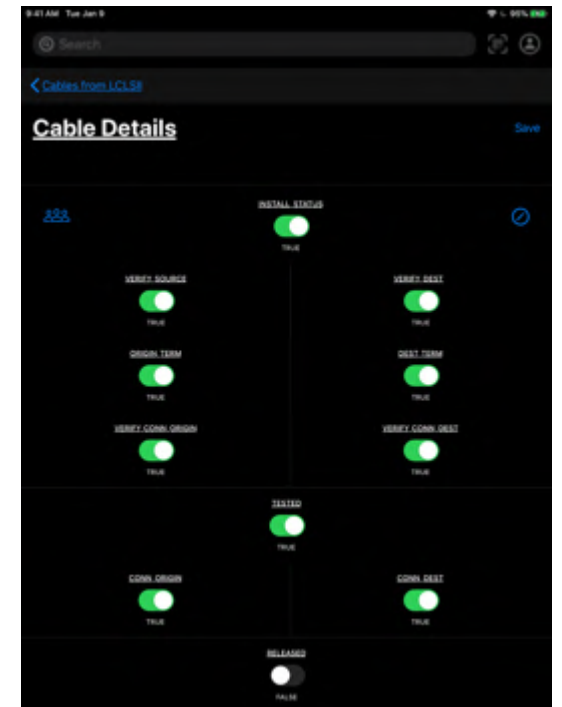
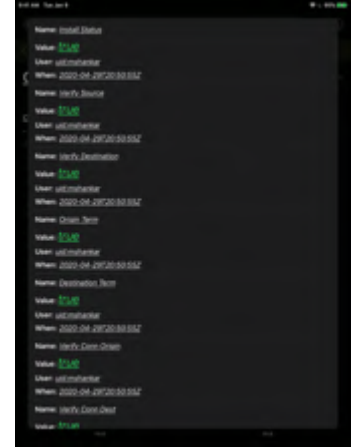
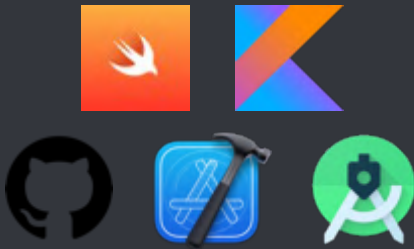


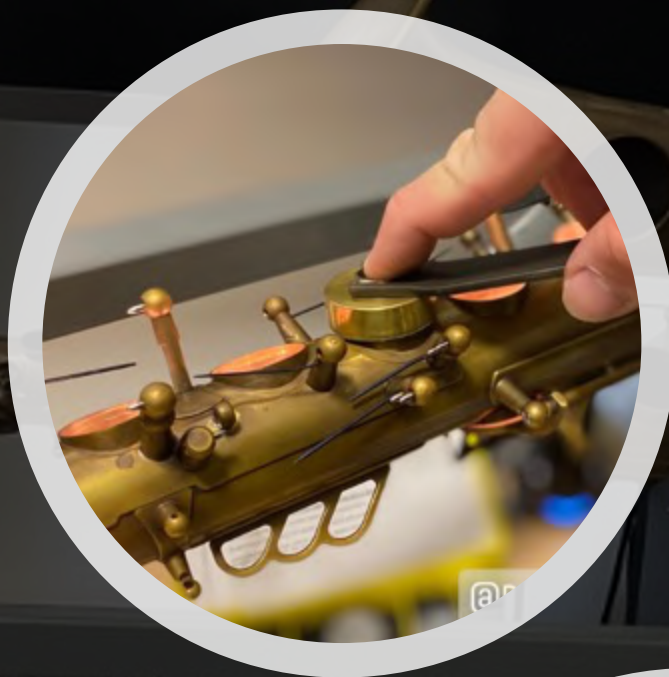
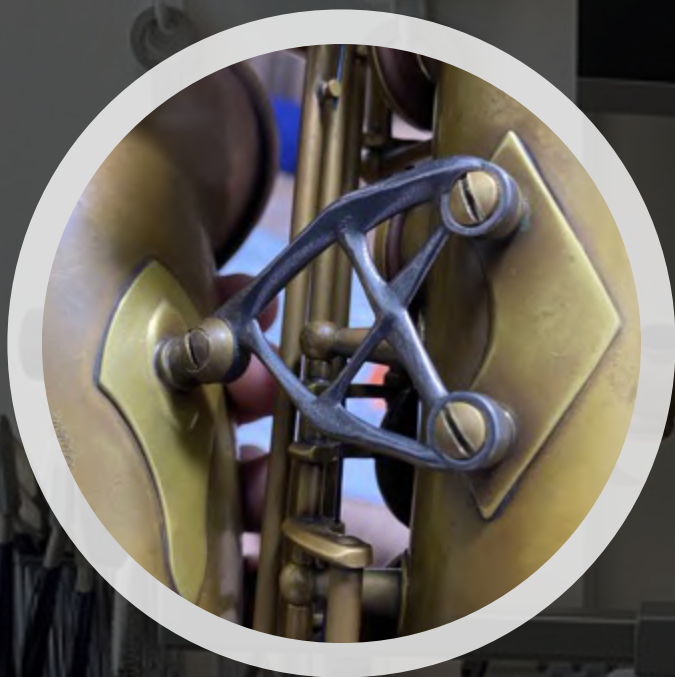
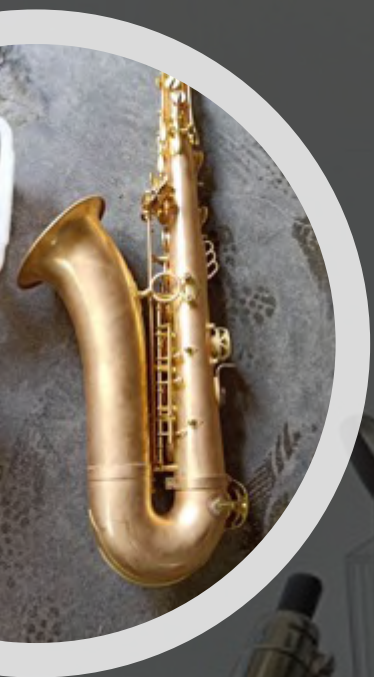
SLAC

Role: Technical Documentation and Software Engineer

- Built an iOS and Android mobile application to help technicians and engineers to track and manage their cable connections in SLAC, the longest linear particle accelerator in the world. Our app features a QR code scanner and deferred syncing.
- Each project involves more 10 000 cables and there are more than 10 projects happening at the same time. Our algorithm has improved data syncing time by **10 times faster** than the previous application.

Tech Stack





Saxophone Manufacturing Project

Prototyping the First Saxophone in Singapore

- Combining components from the best suppliers and manufacturers at over 10 countries worldwide
- Our proprietary design, tooling and processes helps to ensure the highest quality






Saxophone Manufacturing Highlight: The Machine Shop

Featuring products made in-house at our
machine shop in Indonesia



Saxophone Manufacturing Highlight: Handcrafted Saxophone Necks

- Hand Hammered Saxophone neck
- Lead-free processes



Saxophone Manufacturing Highlight: Bell to Body Brace

**First Metal Additive Manufacturing
part for commercial use in the
Saxophone**

The design allows for a stronger bell to
body joint such that no adhesives is
needed in the body to bow joint

RC4Space: Garage

Project Director / Founder (2018),

Advisor (2019 –present)

- Spearheaded the first student-led makerspace initiative in the National University of Singapore.
- A space where students can work on their personal and academic projects.
- We provide 3D Printers, workstations, hand tools, power tools and supplies to support student projects.

NUANSA 2019: Lukisan Jati

Producer (Project Director)

- Directed ideas, set objectives, and led the executions of a musical production valued at over SGD 50,000 with a team of 112 members

Website: <https://www.nuansacp.com>



Lukisan Jati
NUANSA production

Featured: NUS Student Life Ambassador

DIVERSITY & INCLUSION

STUDENT LEADERS

Juggle between CCAs and Studies – Is this possible in NUS?



<http://nus.edu.sg/osa/stories/details/Index/juggle-between-ccas-and-studies>



Conference
Session
@
3D Experience
World 2021