

Russel Bradley

Email: Russel@RB3DPtechnology.com

Mobile: (+65) 8335 1694

Website: <http://www.RB3DPtechnology.com/>

LinkedIn: <http://www.linkedin.com/in/russelbradley/>

Current Location: Singapore | Home Country: Indonesia

Personal Profile Statement

I am a final year Mechanical Engineering undergraduate at the National University of Singapore aspiring to deepen my understanding and gain insights in the design and manufacturing industry, with a particular interest in design and manufacturing as tools to make the world a better place. I am particularly interested in the fields of Additive Manufacturing, Computer-Aided Design and Industry 4.0.

Education

- | | |
|--|----------------------------|
| National University of Singapore, Singapore (4.47/5.00) | Aug 2017 – Jul 2021 |
| <ul style="list-style-type: none">• Bachelor of Engineering (Honours), Mechanical Engineering• Second Major in Innovation & Design, Minor in Computer Science• Studied topics on Manufacturing Engineering, DfMA, CAD & CAM, tool design and manufacturing automation• ASEAN Undergraduate Scholarship and AY2018/2019 Semester 1 Dean's List | |
| University of California Merced, United States of America (4.0/4.0) | Jan 2020 – May 2020 |
| <ul style="list-style-type: none">• Non-Graduating, Student Exchange Program in Computer Science and Engineering• Completed courses on Software Engineering, Computer Networks, Algorithms and CAD | |
| Bina Bangsa School Malang, Indonesia (4A*) | Aug 2015 – May 2017 |
| <ul style="list-style-type: none">• High School, Accelerated Program, Cambridge A Level Examinations | |

Professional Certificate

Additive Manufacturing for Innovative Design and Production

- MIT xPRO (Massachusetts Institute of Technology), September 2020 – January 2021

Teaching Experience

- | | |
|---|--------------------|
| ME2161: Manufacturing Processes, National University of Singapore | Fall 2020 |
| Teaching Assistant 375 students Teaching Evaluation pending | |
| TME2162: Manufacturing Processes, National University of Singapore | Fall 2020 |
| Teaching Assistant 52 students Teaching Evaluation pending | |
| EG2301: Case Studies in Innovation, National University of Singapore via Autodesk | Fall 2020 |
| CAD Instructor (contract) 120 Students | |
| EG2301: Case Studies in Engineering, National University of Singapore via Autodesk | Fall 2019 |
| CAD Instructor (contract) 102 Students | |
| EG1311: Design and Make, National University of Singapore | Fall 2019 |
| Lab Tutor 60 Students Teaching Evaluation 4.5 / 5.0 | |
| CS1010E: Programming Methodology I, National University of Singapore | Spring 2019 |
| Teaching Assistant 14 Students Teaching Evaluation 4.1 / 5.0 | |

Internship Experience

- SOLIDWORKS Student Leader Intern at Dassault Systèmes, USA (Remote)** **Oct 2020 – Present**
- Dassault Systèmes is a multinational company that develops CAD software such as SOLIDWORKS and CATIA
 - Enhance NUS students' Computer Aided Design (CAD) skills by conducting workshops, training sessions, meet-ups and certifications on the SOLIDWORKS 3D CAD software
- Algorithm Intern at Lexikat (Vox Dei Pte Ltd), Singapore** **Jun 2020 – Aug 2020**
- Lexikat is a text analytics software that helps to capture topics and visualize text data
 - Designed & improved algorithms to process millions of pages of Bahasa Indonesia text data in Python & C++
 - Built the initial text analytics prototype to expand to the Indonesian market
- Autodesk Fusion Catalyst Intern at Autodesk Asia Pte Ltd, Singapore** **Jan 2019 – Dec 2019**
- Autodesk is a multinational company that develops CAD software for manufacturing, construction and media
 - Promoted Autodesk Fusion 360 (cloud-based CAD, CAM & CAE software) to NUS students and professors
 - Conducted workshops on CAD and its applications using Autodesk Fusion 360 to a total of 500 students
 - Successfully integrated Fusion 360 into 2 NUS modules, increasing outreach to an additional 700 students
- Automation Engineering Intern at Structo Pte Ltd, Singapore** **May 2019 - Aug 2019**
- Structo is a digital dentistry company that manufactures high throughput resin-based 3D printing solutions
 - Conducted quality and reliability testing, FMEA, and DfX analysis of Mask Stereolithography 3D Printers
 - Designed and manufactured parts and subassemblies for automation systems using Computer Aided Design
 - Delivering world's first fully automated production line capable of printing thousands of unique products per day

Conference Presentations

Bradley, R. (2021, February). Designing Augmented Reality Models for the Digital Classroom. Conference session presented at 3D Experience World 2021, a Dassault Systèmes annual conference, Nashville, Tennessee, United States of America (Online).

Organisational and Committee Experience

- NUANSA Cultural Productions, Producer (Project Director)** **Jan 2019 – Dec 2019**
- Planned and managed an Indonesian cultural production worth over SGD 50 000
 - Headed team of 112 people from different departments from external relations, artistic and production
 - Improved cash flow by significantly reducing production costs by 60%
- NUS Residential College 4, RC4SPACE, Vice President** **Aug 2018 – Aug 2019**
- Spearheaded a student-led makerspace initiative
 - Organized weekly hands-on workshops on technology (Arduino, Raspberry Pi, Python programming, Telegram bot)
 - Initiated a project on an automated laundry notification system used by more than 600 people
 - Developed e-learning and course material on 3D Printing and CAD
- PINUS (NUS Indonesian Students Association), Finance Director** **May 2020 – Present**
- NUS Residential College 4, RC4 Music Expression, Treasurer** **Aug 2018 – May 2019**
- Bina Bangsa School Student Council, President** **Aug 2015 – May 2016**

Certifications

- Certified SolidWorks Professional – Mechanical Design
- Certified SolidWorks Professional Advanced – Drawing Tools
- Certified SolidWorks Associate – Mechanical Design
- Certified SolidWorks Associate – Additive Manufacturing
- 3D Experience Collaborative Business Explorer
- Autodesk Certified Associate – CAD for Mechanical Design
- Autodesk Certified User – Fusion 360
- Siemens Solid Edge 2019 Professional
- Siemens Solid Edge 2019 Associate II
- Siemens Solid Edge 2019 Associate I
- Arduino Fundamentals

Awards and Honours

- ASEAN Undergraduate Scholarship, National University of Singapore
- Dean's List AY1819 Semester 1, National University of Singapore Faculty of Engineering
- Top in The World – Cambridge AS Level Mathematics, November 2016 Session
- Valedictorian, Bina Bangsa School Malang

Skills

- **Languages:** Native Bahasa Indonesia, Fluent in written and spoken English, Limited working proficiency in Mandarin
- **Business Skills:** Project Management, Negotiation, Corporate Relations
- **Productivity:** Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Google Workspace (formerly G Suite)
- **Programming Languages:** C, C++, Java, Python, HTML, CSS, JavaScript, nesC (TinyOS), Matlab
- **CAD/CAM/CAE:** Solidworks, Autodesk Fusion 360, Siemens Solid Edge, PTC Onshape, Ansys
- **Hands-on:** Manual Lathe and Milling, 3D Printing, Laser cutting, CNC Machining
- **Others:** Teamwork, Collaborations, Teaching, Public Speaking, Design Thinking, Systems Thinking

References

Prof. Dr. SEAH Kar Heng

Professor
Mechanical Engineering Department
National University of Singapore
Tel: +65 6516 2220
Email: mpeskh@nus.edu.sg

Dr. WOON Keng Soon

Lecturer
Mechanical Engineering Department
National University of Singapore
Tel: +65 6601 3947
Email: mpewks@nus.edu.sg