

# SHIEN YANG LEE

+65 9101 4135 | shienyang\_lee@mymail.sutd.edu.sg

LinkedIn: <http://www.linkedin.com/in/shienyanglee> | Portfolio: <https://shienyanglee.com>

---

## Education

- Singapore University of Technology and Design (SUTD)** **Sep 2017 – Sep 2018<sup>1</sup>**  
Singapore  
— MEng (Research), MIT-SUTD Dual Masters' Program
- Massachusetts Institute of Technology (MIT)** **Sep 2016 – Aug 2017**  
Cambridge, MA  
— MEng in Advanced Manufacturing and Design, GPA: 5/5
- New York University Abu Dhabi (NYUAD)** **Aug 2012 – May 2016**  
Abu Dhabi, UAE & New York, NY  
— B.S. in Mechanical Engineering, GPA: 3.96/4, *magna cum laude*

## Work Experience

- New Valence Robotics, *Process Improvement Engineer*** **Jan 2017 – Aug 2017**  
Boston, MA  
— Designed experiments to quantify 3D printer dimensional accuracy  
— Extracted troubleshooting insights from existing manufacturing data  
— Developed error compensation system that improved 3D printer accuracy by 20% with no hardware changes
- MIT Technology Licensing Office, *Technology Licensing Intern*** **Jan 2017 – May 2017**  
Cambridge, MA  
— Acquired commercialization leads for MIT IP  
— Wrote technology briefs to market MIT IP to potential licensees  
— Assisted Technology Licensing Officer in developing IP portfolio marketing strategy
- NYUAD Biomechanics Lab, *Product Development Engineer*** **May 2014 – Jun 2016**  
Abu Dhabi, UAE  
— Designed and built patent-pending plant strength measurement device  
— Coordinated the successful fabrication of 13 late-stage device prototypes within 2.5 months  
— Supervised and mentored undergraduate research assistants and capstone project students  
— Established new vendor relationship between NYU and UAE-based machine shop
- NYUAD Engineering Design Studio, *Prototyping Lab Intern*** **Oct 2015 – May 2016**  
Abu Dhabi, UAE  
— Inspected and maintained lab equipment to ensure smooth operation  
— Mentored over 60 first-year undergraduates completing *Design and Innovation* course projects  
— Trained students in operation of prototyping tools including CNC router, 3D printers, and laser cutter

## Selected Projects

- MIT & Sime Darby Group, *Oil Palm Harvesting Productivity Improvement*** **Aug 2016 – Dec 2016**  
— Conducted cost analysis and time studies of oil palm harvesting operation to identify bottlenecks  
— Designed and built portable tool to increase rate of loose fruit collection while reducing user effort
- NYUAD & Monsanto Company, *Portable Corn Stalk Testing Device*** **Jun 2015 – Jun 2016**  
— Novel mechanical testing device to improve corn stalk strength measurement  
— Patent application: PCT/US2016/037434
- NYUAD, *ReefRover*** **Dec 2015 – May 2016**  
— Designed and built submersible drone for autonomous imaging of marine environments by citizen scientists  
— Awarded Second Place at UAE National Drones for Good Award 2016

## Skills

### Engineering

- Machine design, design for manufacturing, statistical process control, design of experiments, inventory planning, FEA, mechanical testing, Arduino, Raspberry Pi, basic electronics and PCB design etc.

### Business

- Value chain analysis, stakeholder analysis, design thinking, supply chain analysis and design

### Computing

- Solidworks, Fusion 360, MATLAB, FlexSim, HTML, CSS,  $\LaTeX$ , Scribus, GIMP, Inkscape, ANSYS, COM-SOL, Linux, Python, C++, Perl etc.

### Language

- Native proficiency in English and Mandarin; professional working proficiency in Malay; elementary proficiency in French

---

<sup>1</sup>Expected graduation date.

---

# SHIEN YANG LEE

+65 9101 4135 | shienyang\_lee@mymail.sutd.edu.sg

LinkedIn: <http://www.linkedin.com/in/shienyanglee> | Portfolio: <https://shienyanglee.com>

---

## Leadership and Volunteer Experience

**MIT Makerworkshop, *Shop Mentor*, Cambridge, MA**

**Feb 2017 – Aug 2017**

- Provided shop safety supervision and advise users on design and fabrication
- Trained users on metal lathe operation

**NYUAD Office of Residential Education, *Resident Assistant*, Abu Dhabi, UAE**

**Aug 2015 – May 2016**

- Enforced university policies and served as first responder during after-hours emergencies
- Organized educational and social programs for up to 300 residents

## Publications

Robertson, D., **Lee, S.Y.**, Julias, M., Cook, D.D., Maize stalk lodging: morphological determinants of stalk strength, *Crop Sci.* 57, no. 2 (2017): 926-934.

Robertson, D., **Lee, S.Y.**, Julias, M., Cook, D.D., Maize stalk lodging: flexural stiffness predicts strength, *Crop Sci.* 56, no. 4 (2016): 1711-1718.

Von Forrell, G., Robertson, D., **Lee, S.Y.**, Cook, D.D., Preventing lodging in bioenergy crops: a biomechanical analysis of maize stalks suggests a new approach, *Journal of Exp. Botany* 66, no. 14 (2015): 4367-4371.

---