

# Alyson Pickering

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## Education

### **Purdue University, West Lafayette, IN**

Bachelor of Science in Materials Engineering & Bachelor of Arts in French  
Minor in Global Engineering Studies

May 2024  
GPA 3.41/4.00

### **Study Abroad: ISAE-SUPAERO, Toulouse, France**

Spring Semester in Aeronautical/Aerospace Engineering

Spring 2022

Relevant Coursework: Simulation & Modeling of Materials, Kinetics of Materials, Materials for Hypersonics, Aircraft Structures & Materials

## Experience:

Tesla: *Materials Engineering Program Management Intern*

Sep 2022-Jan 2023

- ❖ Built and launched a Python-based web app capable of interfacing with Jira, Microsoft Office, and network locations to report the degree of completeness for 400+ raw material qualification tickets and reduce time spent reviewing supplier submissions by 67x
- ❖ Coordinate and lead bi-weekly meetings between international polymers, programs, and supply chain teams to define metrics for success and assess current status for materials qualification activities
- ❖ Reviewed the existing and implemented a new Jira workflow to provide clarity between the qualification status and the production status of a raw material
- ❖ Managed relationships with global polymers suppliers and guided them through the raw material qualification process
- ❖ Developed a joint maturity tracker using excel VBA to monitor fastener related risk levels for new programs

Rolls-Royce Defense Aerospace: *Materials Engineering Laboratory Intern*

May 2021-Aug 2021

- ❖ Curated a digitalized logbook for daily verification testing of lab equipment to save time and reduce risk of inaccurate testing results
- ❖ Authored a standardize lab procedure (SLP) for debris analysis to provide a repeatable process that the lab engineers can follow to produce consistent results
- ❖ Coordinated and execute a round robin for thermal spray coupons to assess if the lab engineers report consistent results in their routine production evaluations
- ❖ Reviewed existing SLP's and correct inconsistencies between current practices, listed procedures, and industry standards
- ❖ Prepared and evaluate samples for routine production and non-routine work requests to fulfill the metallurgical laboratory needs of other departments

Purdue Department of Biomedical Engineering, *Undergraduate Researcher*

Jan 2020-Jan 2022

- ❖ Primary Investigator: Jacqueline Linnes
- ❖ Investigated how electronics can be best utilized to measure biological signals by creating affordable and low-tech wearable health monitoring devices
- ❖ Designed circuitry and hardware using Eagle to meet the project's specifications such as processing power, battery life, and size
- ❖ 2021 BMES Oral Presentation: *KickStat BLE: A Bluetooth-Enabled Miniaturized Potentiostat for Wearable Applications*
- ❖ Spring 2020 Poster Presentation, Purdue Undergraduate Research Conference: *NeoSMART: A Neonatal Thermal Management System with Integrated Vital Signs Monitoring*

Purdue Office of Professional Practice: *Teaching Assistant*

May 2020

- ❖ Current courses: *Intro to Electronics, Biomedical Instrumentation, Designing a Smartwatch, iOS App Development, Android App Development*
- ❖ Explain and demonstrate course concepts in multiple manors to cater to the specific learning styles of each student to ensure a thorough understanding of all concepts is achieved by every individual
- ❖ Create lesson plans for each course that can be easily interpreted by any future instructors of the courses

## Skills:

**Technical:** Certified Microsoft Office Specialist, Visual Basics, Fusion 360, Inventor, Eagle, Arduino, MATLAB, Python, C++, Html, Confluence, Jira, Kanbanize

**Language:** French

## Awards & Scholarship Programs:

**2022 & 2023 Society of Women Engineers Boeing Merit Award:** Merit scholarship for a SWE member with an interest in aerospace.

**2022 Semester Abroad in Intercultural Learning (SAIL) Scholarship Program:** Distance learning courses that challenge students to engage with their host-country's culture to encourage the development of intercultural attitudes, skills, and knowledge

**2020-2021 OUR Scholar:** Research scholarship program that recognizes undergraduate student engagement in original research under the guidance of a Purdue faculty

**Fall 2021 Office of Undergraduate Research (OUR) Professional Development Grant Recipient:** Grant program supporting Purdue undergraduate students presenting research findings at a national or international academic conference

**Spring 2020 OUR Research Grant Recipient:** Grant program supporting Purdue undergraduate students in the pursuit of their research