Selasie Tse

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EDUCATION

BS, Mechanical Engineering | University of Texas at Austin **May 2024**

Elements of Computing Certificate

GPA: 3.406

Relevant Courses: Statics | Dynamics | Solids | Programming and Engineering Computational Methods | Differential Equations with Linear Algebra | Thermodynamics | Vector Calculus | Elements of Computer Programming | Fluid Mechanics

WORK EXPERIENCE

Texas Inventionworks | ***University of Texas at Austin*** **May 2021 – Present**

President

- Managed staff, daily operations, and internal projects of 10 labs dedicated to the development of personal and academic projects through various manual and digital fabrication techniques.
- Communicated with company representatives visiting the university about services and resources delivered to the students and research through the laboratories.
- Generated documentation for the policies, management, and navigation of the space and its resources.

Student Technician

- Operated and repaired a variety of manufacturing machines including SLA and FDM 3D printers, CNC machines, laser cutters, 3D scanners and workshop tools.
- Provided training, advice, and consultation to 100+ students and faculty on their engineering projects.
- Developed trainings used by 1000+ students for the use of the tools and machines available in the makerspace.

UT RecSports | ***University of Texas at Austin*** **Feb. – May 2021**

Activity Supervisor

- Operated the recreational sports system to handle tasks such as member identification and equipment checkout.
- Oversaw activities at the outdoor recreational sports facilities used by 200+ students and staff daily.

LEADERSHIP

Pick and Place machine, Texas Inventionworks **June 2021 – Present**

A component placement system designed to automate the surface mounting process onto PCB boards.

- Developed 30+ CAD models of all the parts required for the device's operation in Solidworks.
- Configured Marlin firmware for the control board to operate the motors and peripheral components.
- Manufactured, assembled, and prototyped the machine's mechanical and electrical subsystems.

Steering Sub-team, Longhorn Racing (Solar) **Aug. 2020 – June 2021**

A student organization designing and building a solar-powered racing vehicle to compete in a national competition.

- Modeled components of the steering and suspension subsystems in Solidworks.
- Manufactured various parts of the steering assembly with a CNC machine.
- Coordinated with other sub-teams to ensure smooth integration with other systems in the rest of the car

SKILLS & INTERESTS

- **Design Skills:** Precise mechatronic system design, vehicle suspension design, Rapid prototyping, Adobe Creative Suite.
- **Technical Skills:** Laser cutter operation and repair, FDM 3D printer operation and repair, SLA and SLS 3D printing, CNC machining, Workshop tools.
- **Programming Skills:** Python, MATLAB, HTML, CSS, JavaScript.
- **Interests:** Image and video editing, soccer, music, ping pong, basketball, animation, graphic design.