

Xin Yu Hoon (Yuki)

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Education

Bachelor Degree in Civil Engineering

August 2018 – December 2022

Purdue University, West Lafayette, IN

- Cumulative GPA: 3.11/4.0

Skills

- Experienced with BIM and modelling software Revit, Navisworks, AutoCAD, Solidworks; project scheduling Software Primavera P6 and Microsoft Project; GIS software ArcGIS and QGIS
- Proficient in MS Office applications (Word, PowerPoint, Excel, Outlook)
- **Languages:** Fluent in English and Mandarin

Relevant Experience

Geospatial Data Science Laboratory, Purdue University

November 2021 – May 2022

Undergraduate Research Assistant

- Collected GIS data from 18 local corn and soybean fields using UAV image and GPS coordinates to compare how closely line-transect method and GIS method models crop residue in a field
- Assisted in the setup of UAV, GNSS receiver, ground control points for data collection and ensured proper equipment maintenance
- Led team members during line-transecting and developed standard operating procedures which cut down data collection process by 30%
- Processed 100,000+ UAV images using ArcGIS and QGIS to layer onto real-time maps and collaborated with team members to produce photogrammetry and point clouds for crop analysis
- Coordinated research trip logistics such as personnel, transport, monitoring weather conditions and generated monthly reports to track team progress

Purdue Theater Production, Purdue University

January 2022 – December 2022

Production Staff

- Constructed and installed large theatrical props with moving elements following the needs of multiple shows
- Assisted in stage rigging to hoist soft goods and maintained a safe working environment by conforming to established safety policies and procedures
- Designed and built a 1/8 scale model based on local theater dimensions and constructability following thorough analysis of script
- Collaborated with a team of tailors to design and construct costume for actors while also providing basic altering services throughout duration of show

Academic Projects

Dehart-River Road Combined Sewer Overflow Project

- Designed tank and pipe system that expands current stormwater and wastewater capacity in West Lafayette by 1.7 million gallons
- Utilized BIM software to independently model tank, prepare construction drawings, perform detailed cost estimation and project scheduling

Burns Harbor Breakwater Redesign Project

- Analyzed existing construction drawings and historical data of Lake Michigan water level to investigate cause of failure
- Performed calculations using coastal principles to determine wave parameters and suggested new crest height and armor stone size to rectify faulty design

Achievements

1st Place for Purdue TPED Theme Park Design Competition

March 2020

- Conceptualized elaborate theme, storyline and marketing plans while following a theoretical set of budgets and limitations
- Designed theme park layout complete with utility tunnels for staff members and rendered floor plans and landscaping with Revit