Audrey Lee

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Education

BENG Aerospace Engineering with a Year in Industry — Sept. 2021 – July. 2025
University of Bristol — United Kingdom
Related module: Engineering Math, Aerodynamics, Aerospace Dynamics, Design, Build & Test

International Foundation Year (STEM) (Achieved: 1st class honour, 78%) — Sept. 2020 – July. 2021
University of Bristol — United Kingdom

US Higher Education (Achieved: 3.97 GPA, 1st class honour) — Sept. 2019 – June. 2020
Green River Community College — USA

Related Experience

Junior Structural Engineer at Offshore Jack-up Team (Placement) — Jul. 2023 – Present
DNV — London, United Kingdom
Engineering Consultancy

- Created a python script template for footing reactions interpolations, to extract data in increments with existing data. The script coordinates with the analysis output and a spreadsheet. Openpyxl module is utilised to extract data from the spreadsheet and algorithms/calculations are applied to ensure the script works for all cases. Project pipeline increased by 70% due to reduction in repetition of analysis runs.

- Proactively created and edited a training video for the team to demonstrate project setup procedures step-by-step. Empowering team members with readily accessible guidance for ongoing reference and skill enhancement. This initiation facilitates a seamless learning experience, enabling team members to revisit and reinforce their understanding at their convenience. Team proficiency and project setup efficiency increases by 80% and administrative work accuracy increased to 100%.

- Take part in modelling project that consists of structural data for the jack-up rig. Analyse data and gather it in notepad++ for JUSTAS software to run the analysis. Provide solutions to clients in design optimisation.

- Perform Site Specific Assessment (SSA) in accordance with ISO-19901-2 for jack-up rigs in different locations. Assessment requires analysis in structural and geotechnical perspectives. Ensure safety compliance measures to allow jack-up rigs legally operate in specific locations while maintaining structural & geotechnical safety.

- Consult clients with assessment results, provide solutions if SSA results show overutilisation. Supply supporting data such as geotechnical graphs and structural utilisations to clients. Passing rate of analysis increases to 100%. Issue engineering report including presenting results, geotechnical analysis, metocean extremes, preloading data, earthquake seismic zone, etc.

- Take part in punch-through analysis (PTA) for jack-up rigs. Assessment requires accurate data in the punch-through leg, including the penetration of the leg in the seabed, and the structural tolerance of the leg. Proactively schedule regular meetings to update clients with critical results due to punch-through danger and reassure clients with valid support data.

Propeller Design Engineering Research Assistant — Sep. 2022 - Present
Propeller Design Project — University of Bristol, United Kingdom

- Consult client – University of Bristol to optimise design process efficiency, in terms of time, quality and air worthiness. Actively created KPI checklist, referencing professor, client request and UKCAA Part 21 regulations, to ensure the structural design meets programme airworthiness, "Design Quality Assurance Criteria". Compliance rate maintains 100%.

- Assist professor, 5 final year students (from UK, EU) on project management. Suggest, integrate digital project management system - Asana, to list and monitor KPI: deadline, deliverables, milestone. Project pipeline streamlined 20%.

- Advise client to identify propeller design and its material selection to achievement maintain budget. Actively conduct market research all potential suppliers lead, and create CRM dashboard to list, analyse cost coverage. Perform metal, temperature, airflow test to complete material qualification. Predicted cost reduction hits 5%.

- Support research team of 5 to complete full research cycle and engineering reports, from abstract, technical studies, investigation, engineering experiment to presentation. Receive trainings on testing e.g. vacuum forming, foam cutting, metal cutting, skinning, stress analysis, tensile test, and hot works. Resolve experimental problems like aerodynamics, compressible and incompressible effect. Conduct FMEA and apply Fusion360 skills to present ideas and assemble 3D parts.

Sustainability Engineer (Finalist) — Mar. 2022
Boeing - Innovation Event — University of Bristol, United Kingdom
Competition hosted by Boeing

- Advised Boeing regarding on-site aircraft maintenance workers' health & safety, by proposing innovative virtual simulation technology and performance analysis. Took initiative to reference UN SDGs goals, conduct cost & benefit analyses and safety compliance to identify low-cost solutions. Performed customer journey map to resolve aerospace engineers' operation limitation. Awarded finalist status.

Design & Manufacturing Engineer (Awarded 1ˢᵗ Runner Up) Mar. 2022
Solve Our Ocean Competition University of Bristol, United Kingdom
Competition hosted by Engineering without Border society
- Led a team of 4 international teammates, from UK, Malaysia, EU, to propose solutions to EWB society, within 4 weeks. Proposed, implemented digital project management dashboard - Trello, to list and monitor KPI: deadline, deliverables, milestone. Provided ad-hoc support to teammates when progress visualised as slow. Project pipeline streamlined 20%.

- Supervised ship design project lifecycle, from concept, specification, cost consideration, qualification test to production using AutoCAD (2D), Fusion 360 (3D). Actively conducted market, academic research, and the eco-system to optimise ship design. Produced specification report to build the prototype. Awarded champion in design element.

- Consulted "Engineering without Border society" on driving the ship's commercial value by data analysis. Proactively drafted process, value chain map, while using Gap analysis to identify area of improvements and design calculations (long waste recycling process after collecting the waste). Researched and identify Ideonella Sakaiensis bacterium, using data analysis, breakdown method. Waste handling time reduced by 50%.

Work Experience
Traditional & Digital Marketing Internship Oct. 2022 – Dec. 2022
Clocky Bristol, United Kingdom
Industrial design, alarm clock branding, consumer products company
- Plan, execute digital marketing/ creative campaign across, Instagram, Facebook, TikTok for B2C client acquisition. actively create customer journey map, marketing calendar, after conducting Google Trend analysis to identify, produce best copywriting, along client lifecycle. Referenced competitors, launched giveaway campaign, online traffic.

- Managed Paid Social Ads' planning and distribution, across Instagram, Facebook. Actively built data dashboard, calculating KPI: click-thru, impression, conversion, cost, after extracting data from Meta Business Manager, while conducted AB testing to identify best keywords, segmentation, paid post. PPC, PPI reduced by 10%, while exposure rate increased by 80%.

Digital Marketing Summer Internship Jul. 2022 – Aug. 2022
Yumtake Hong Kong
Digital marketing, event management, movie sponsor, PR service & influencer campaigns agency
- Planned, executed digital marketing campaign across, Instagram, Facebook, for B2C client acquisition. Proactively created customer journey map, marketing calendar, after conducting Google Trend analysis to identify and produce optimised copywriting, along client lifecycle. Online traffic, enquiries and conversion increased by 400%.

- Supervised Paid Social Ads' planning and distribution, across Instagram, Facebook. Actively created a data dashboard, calculating KPI: click-through, impression, conversion, cost, after extracting data from Facebook Business Manager, Twitter to identify best keywords, segmentation. PPC, PPI reduced by 10%, while deals increased by 20%

Digital Marketing & Business Development Executive Aug. 2021 – Present
(@gugugu_uk.sharing) United Kingdom
- Design and provide informative content about living in the UK, and share tips to HK students studying abroad (Followers increased by 100% in 3 months)

- Act as a BD executive to manage the whole sales cycle, from lead generation to pitching to contract completion, to secure a B2B relationship - influencer marketing cooperation. Propose and implement through marketing plans for customers, including a customer journey map and a marketing calendar to promote the client's business. Secured 2 deals – Keto Store HK and Healthily Heavenly, sales conversion raised by 10%.

Other Experience
Waitress Feb. 2022 – Mar. 2023
113 Chinese Restaurant Bristol, United Kingdom
Chinese Restaurant
- Analyse targeted audience needs and wants and designed a new drinks menu and recipe that was cost effective. Reduced ingredient cost by 30%
- Suggest holding festive events in Chinese New Year to attract customers, and boost the sales on that day by 50%

Skills
IT
Programming Python   (self-learnt with Codecademy certificate + work on python template for DNV)
HTML & CSS (beginner)   (personal website portfolio: **https://audrey-lee-portfolio.co.uk/**)
Algorithms (bubble sort, insertion sort)
Programming MATLAB (beginner),
3D Modelling: Fusion 360 (beginner)
Canva, Lightroom, Premiere Pro, Microsoft office software, Microsoft Excel

Language
English (Fluent), Cantonese (Native), Mandarin (Native)