Liana McMillan Sellam

My-Portfolio

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PROFESSIONAL SUMMARY

A highly analytical and detail-oriented aerospace engineer with a strong background in data analysis, programming, and problem-solving. Proficient in Python, MATLAB, and statistical analysis, with a proven track record in complex project management and technical innovation.

EDUCATION

Bachelor of Aerospace Engineering (Honours), University of New South Wales (UNSW), June 2024
- Relevant Coursework: Financial Engineering, Statistical Analysis, Advanced Programming
- Thesis: IR Device and Website Development for Sports Bar TV Channel Automation
- Award: Warwick Slade Royal Aeronautical Society Prize 2022
- Activities: Outreach Director, UNSW Aerospace Society

College Sevigne, Paris, France: French Baccalaureate in Science with honors (Majored in Physics and Maths)

PROFESSIONAL EXPERIENCE

Spiral Blue, Sydney Australia Mission Manager — **May 2024 - Present**

-Managed Earth Observation projects, utilizing satellite imagery for client solutions.
-Conducted market research and applied for grants to expand US operations.
-Designed thermal systems for Space Edge Computers, improving performance.

Vidi Astra, Sydney Australia (Space Engineer) — **Jan - May 2024**

-Directed the design and technical implementation of LiDAR systems for satellites.
-Engaged with industry leaders and potential investors to drive innovation.
-Led recruitment and oversaw interns in electrical engineering and circuit processing.

Vidi Astra, Sydney Australia (Intern) — **Oct 2023 - Jan 2024**

-Assisted in developing space-borne LiDAR technology for remote sensing applications.

Focus4Communications, Paris France (Intern) — **Sept 2018 - Sept 2019**

- Assisted in client meetings, developing client-facing documents and presentations.
- Conducted market research to support communication strategies.

Engineering Consulting Group (ECG), Cairo Egypt (Intern) — **June - Aug 2015**

- Collaborated on design projects, utilizing software for space planning and material selection.
- Contributed creative ideas in brainstorming sessions.

CERTIFICATIONS AND COURSES

- Finance & Quantitative Modeling for Analysts (UPEN) - Coursera
- Introduction to Mathematical Thinking (Stanford) - Coursera

TECHNICAL SKILLS

- Programming: Python, C++, MATLAB (Simulink),
- Data Analysis: Statistical Analysis, Financial Modeling
- Machine Learning: Satellite Imagery Detection, TensorFlow, scikit-learn
- Tools: GitHub, CATIA, Solidworks, Fusion360
- Electronics: Raspberry Pi, Arduino, Circuit Design
- Other: Microsoft Office, LATEX, Control Systems, CNC, CAD, CAM

ACADEMIC PROJECT EXPERIENCE

Bioenergy and Renewable Fuels **Sept 2022 - Dec 2023**

Biodigesters and Hydrogen Fuel Cells created in Laboratory.

Developed a biodigester capable of converting organic waste, such as food scraps and sewage, into biogas and organic fertilizer. Conducted in-depth research into the chemical kinetics of hydrogen oxidation and oxygen reduction reactions within fuel cells.

Sustainable Biodigester Implementation for the School of Yanuca, Fiji **Sept 2022 - Dec 2023**

Sustainable Energy for Developing Countries

Developed a biodigester capable of converting organic waste materials, such as food scraps and sewage, into biogas, which served as a sustainable and affordable energy source for the school. Acquired knowledge in sustainable Engineering and Design

Satellite Launch Mission Design for Crop Imaging Satellite **Sept 2021 - Dec 2021**

Space Systems Architectures and Orbits

The assignment was focused on launching an imaging satellite intended for crop monitoring and analysis, requiring a meticulous approach to mission design, orbital dynamics, and payload integration.

Energy Harvesting Prototype for Road Vehicle with Wind Turbines and Electromagnetic Regenerative Shock Absorbers **May 2021 - Aug 2021**

Conceptualized and designed an integrated energy harvesting system that included wind turbines and electromagnetic regenerative shock absorbers, optimizing the vehicle's energy capture capabilities.

Warman Challenge **Feb 2020 - May 2020**

Engineering Design Competition

Conceived the concept for an autonomous vehicle equipped with specialized robotics and sensors tailored to Mars' challenging terrain and environment.

PROFESSIONAL AFFILIATIONS

- Member, Royal Aeronautical Society, Australian Division
- Lead, Women In Engineering RAeS, Sydney: Led STEM activities

VOLUNTEER EXPERIENCE

Unicef, Paris France Coordinated fundraising events, and awareness campaigns, to raise funds for UNICEF initiatives.

LANGUAGES

- English: Native
- French: Native
- Spanish: Conversational