MANUEL GUAN

mannyguan22@gmail.com
0468848606
www.linkedin.com/in/manuelguan

PROFILE

- Final-year Master of Engineering (Renewable Energy) at UNSW with a Distinction average - WAM: 82.4
- Combines a Bachelor's in Mechanical Engineering with advanced studies in Power Systems, offering a versatile skillset for complex infrastructure projects
- Skilled in industry-standard engineering tools including AutoCAD, PowerWorld, PSCAD, and PVsyst for system modelling and design
- Interned at ABB and Anhui Shine Power, gaining hands-on experience in CAD design, technical documentation, and production workflow optimization

EDUCATION

Master of Engineering in Renewable Energy September 2024 - December 2026
University of New South Wales

- WAM: 82.4
- Relevant course work: Power System Analysis, Power Electronics for RE, PV, Wind and RE systems Design, Energy Efficiency and Storage, Electricity Market Operation, and Project Management
- Project: Utility / Standalone PV System Design, Modelling and Analysis, Wind farm feasibility study, Energy Storage Solution of Critical Infrastructure, and PMP of Transport for NSW

Bachelor of Science in Mechanical Engineering September 2021 - June 2024
University of Houston

- GPA: 3.125
- ABET-accredited degree under the Engineering Accreditation Commission of ABET (EA Accredited)
- Leader of Capstone Project: Study on effect of phase change material layout and cushion structure on performance of smart heated seats
- Conducted independent research in Study on improvement of subway energy efficiency by optimization of aerodynamic

WORK EXPERIENCE

Intern June 2023 - August 2023
Anhui Shine Electric Power Technology Co., LTD, Hefei

- Managed international trade inquiries on Made-in-China.com, responding to quotes for electrical equipment to facilitate sales and customer engagement
- Produced CAD drawings of sketches for customer-specific requirements, designed company's CAD title frames
- Accompanied company team on visits to partner factories, collaboratively reviewed technical drawings to support accurate component design and project alignment

Intern July 2022 - August 2022
ABB Hefei Transformer Co., LTD, Hefei

- Organized high-voltage coils in workshop to maintain efficient production workflow and safety standards
- Categorized, tagged, and archived transformer drawings from 1995–2020 in Excel, enabling faster document retrieval for employees and improving operational access
- Compiled and created technical presentation files (PowerPoint) for department heads, facilitating clear communication of project data and supporting decision-making

PUBLICATIONS

- GUAN Mingyu, Study on improvement of subway energy efficiency by optimization of aerodynamic characteristics

EXTRA CURRICULAR ACTIVITIES

General Volunteer February 2026 - Present
ARC UNSW Wellness Warrior

- Arranged weekly wellness events, random acts of kindness and Stress Less Week to promote student mental health (Upcoming)

New Media Editor September 2020 - September 2021
Houston International Institution

- Edited and formatted school push articles, ensuring high-quality layout, clear content, and timely publication to promote college events and international programs
- Hosted and conducted interviews for special activities and events, capturing key insights from participants to create engaging content and document campus life

TECHNICAL SKILLS

- PVsyst - Solar PV system modelling and performance analysis in RE System Modelling & Analysis course
- Excel - Data analysis and Stand-alone / Grid-connected PV system modelling and programming
- Furow - Wind farm layout design and feasibility studies in Wind Energy Conversion course
- PowerWorld and PSCAD - Power system modelling, simulation and analysis in Power System Analysis course
- NEMsight - National Electricity Market operations and control in Electricity Industry Operation and Control course
- AutoCAD - Component drawing in undergraduate studies and internships
- Ansys Fluent - CFD and fluid dynamics simulation in graduation design project
- MATLAB - Numerical computing and scripting learned in undergraduate studies
- English - IELTS Band 7
- Mandarin - Native Speaker Level

INTERESTS

- Piano – Grade 8 certification
- Photography
- Filming language interpretation
- Learning Japanese