

NAVEEN PANDITHARATNE

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EDUCATION

University of Wisconsin - Whitewater
Master's, Computer Science

January 2022 - May 2024

University of Hong Kong
Bachelor's, Mechanical Engineering

September 2016 - December 2020

CERTIFICATIONS

Python Specialization (University of Michigan), Data Analytics Professional (Google), Energy Within Environmental Constraints (Harvard University)

PROFESSIONAL EXPERIENCE

American Solar Energy Society

Data Analyst Intern

Remote

January 2025 - Present

- Analyze membership, webinar, and event data using Excel and Power BI to uncover engagement trends and support data-driven strategies across ASES's renewable energy programs.
- Collaborate with Technical Divisions to clean and manage datasets, generate visual reports, and contribute to initiatives in areas like solar, grid modernization, and sustainability.

Community Dreams Foundation

Volunteer Data Engineer

Remote

November 2024 - Present

- Configured and optimized Azure-based data pipelines for the Green Connect App, ensuring scalable and efficient data processing.
- Assisted in data modeling, ETL workflows, and documentation to enhance system interoperability and team collaboration.

UW Whitewater

Graduate Assistant

Whitewater, WI, USA

September 2022 - May 2024

- Maintained and updated campus web content, optimizing accessibility and user engagement.
- Analyzed Google Ads and Facebook Ads performance metrics, creating Power BI dashboards to track key marketing KPIs, leading to data-driven campaign optimizations.

Lalan Group

Mechanical Engineer

Sri Lanka

May 2021 - November 2021

- Designed and optimized utility networks (water compressed air supply) using AutoCAD, reducing operational inefficiencies.
- Monitored and analyzed energy consumption for a 16Mkcal/hr centralized thermic fluid heater, identifying strategies for energy efficiency.
- Managed machinery commissioning projects, leveraging MS Project to track progress, optimize resource allocation, and mitigate delays.

Vidullanka PLC

Engineering Intern

Sri Lanka

February 2021 - April 2021

- Developed a Python-based SARIMA forecasting model to predict energy consumption trends for biomass and hydro power projects.
- Conducted historical load pattern analysis, enabling proactive energy management and reducing waste.

PROJECTS & OUTSIDE EXPERIENCE

Capstone - Physics-Informed Neural Network for Fluid Mechanics

Wisconsin, USA

September 2023 - May 2024

- Implemented a PINN to simulate the Lid-Driven Cavity flow problem, integrating fluid mechanics principles with machine learning.
- Compared the model's performance against ANSYS simulation, achieving higher prediction accuracy using advanced optimization techniques such as L-BFGS.

Capstone - Nano-Scale 3D Printing

Hong Kong S.A.R.

September 2019 - Present

- Designed a multi-nozzle Nano-scale 3D printing system using Python and SolidWorks, achieving a 20% improvement in print resolution.
- Developed a custom software solution to automate nozzle configuration and voltage control.

Neonatal Care Web App

Wisconsin, USA

January 2023 - April 2023

- Designed and developed a responsive front-end for a neonatal care web application using React, ensuring seamless access across multiple devices.
- Collaborated with backend developers for integration and incorporated data visualization tools, prioritizing user privacy, data security, and intuitive user experience.

SKILLS

Skills: Python, Java, SQL, HTML/CSS, R, JavaScript, Arduino, React, Node.js, Express, MongoDB, Git, Power BI