

JORGEN WU

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OBJECTIVE

Results-driven engineer, adept at leveraging technology and data to enhance operational excellence. Wide breadth of experience spanning engineering, machine learning, business, and finance. Seeking to apply expertise in developing efficient, data-driven solutions and contributing to continuous process improvement in organizations.

EDUCATION

PURDUE UNIVERSITY, WEST LAFAYETTE, IN

DEC 2021

- B.S. Mechanical Engineering – GPA 3.85/4.0
- Focus on automation & control systems, computational modeling
- Recipient of Emerson Electric's B.A. Purcell Memorial Scholarship, 2018-2021

EXPERIENCE

ENGINEER, NAVAL NUCLEAR LABORATORY

AUG 2022 - PRESENT

- Developed & maintained custom computational fluid dynamics software, verified programs for performance and accuracy.
- Utilized PyTorch and machine learning to improve thermal condition predictions, reducing computation time by 35%.
- Used Jenkins and Bitbucket to automate build, test, and deployment processes, enhancing development workflows.
- Contributed to digital transformation by modernizing and transitioning legacy simulation code to new hardware.
- Specific details of work are confidential as per US Title-18 and joint DOD-DOE guidance.

SOLUTIONS ENGINEER, PARAGON FLOW

OCT 2021 - PRESENT

- Beat marketing industry benchmarks by over 7x via the application of engineering design and data science processes.
- Spearheaded the establishment of the company's financial department, managing accounting and reporting procedures.
- Designed novel processes for engineering, marketing, and logistics in a startup environment.
- Managed client accounts through Hubspot and other CRM softwares.

INTERN, DABIRI RESEARCH GROUP

JAN - AUG 2021

- Utilized SolidWorks FEA to design custom gantry frames and determine stresses and deformation.
- Designed translation stages and integrated sensors, microcontrollers, and motors to achieve precise end-effector motion.
- Led the development of a graphical user interface and control system to enable remote operation and data collection.

UNDERGRAD RESEARCHER, PURDUE MECHANICAL ENGINEERING DEPARTMENT

JUN - AUG 2020

- Created experimental control algorithm for LCD and SLA 3D printers for improved efficiency and compatibility.
- Utilized industry standard tools to program FPGA controllers and test outcomes in a simulated environment.
- Managed team of five in creating software, integrated and delivered final product to customer.

PROJECTS

MARS CARGO ROVER PROTOTYPE, PURDUE UNIVERSITY

- Designed robot to traverse rough terrain while avoiding obstacles and delivering cargo autonomously.
- Wrote autonomous navigation software in Python with sensory data-driven decision-making capabilities.

SOCCER ROBOTS, CARNEGIE MELLON UNIVERSITY

- Modified educational robots to mesh communicate via Bluetooth and play soccer.
- Implemented computer vision and intelligent path generation algorithms for autonomous control.
- Fabricated and installed custom hardware to protect vital components and chassis from impacts.

RIVERWATCH INVESTMENT RESEARCH, PERSONAL PROJECT

- Generate financial return and growth through algorithmic, data-based investment strategies.
- Optimized risk exposure to minimize portfolio drawdown through the usage of probabilistic methods.

SKILLS

Python, C++, MATLAB, FORTRAN

PyTorch, TensorFlow, SciKit

CI/CD: Jenkins, Bitbucket, PyTest, Jira

Automation & Process Design

Fluid Dynamics / Piping Design

Digital Twin Technology

Customer Relationship Management

Project Management

Proficient in Two Languages