

# Jorgen Wu

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## OBJECTIVE

Forward-thinking engineer with a track record of leveraging technology and data to drive operational excellence. Experienced in scientific computing, thermal hydraulics, machine learning, and business operations. Seeking opportunities to apply expertise in developing innovative, data-driven solutions.

## EDUCATION

### PURDUE UNIVERSITY, DECEMBER 2021

- Bachelor of Science in Mechanical Engineering, 3.85/4.0

## PROFESSIONAL EXPERIENCE

### ENGINEER, NAVAL NUCLEAR LABORATORY, AUGUST 2022—PRESENT

- Developed and maintained custom thermal-hydraulic and scientific computing software.
- Leveraged machine learning and dimensionality reduction to construct reduced-order models.
- Automated build, test, & deployment processes in Jenkins, Bitbucket, and Azure.
- Championed digital transformation efforts by modernizing automation processes and legacy simulation codes.
- Specific work details are confidential per US Title-18 and joint DOD-DOE guidance.

### SOLUTIONS ENGINEER & PARTNER, PARAGON FLOW, OCTOBER 2021—JANUARY 2024

- Implemented a data-driven approach to digital marketing, surpassing industry benchmarks by over 7x.
- Drove revenue growth of over 25% and increased client acquisition rates by over 40%.
- Managed client finances for marketing investment, allocating resources to maximize ROI.
- Designed novel engineering, marketing, and logistics processes in a startup environment.
- Built skills in marketing, finance, consulting, team management, process optimization, and more.

### ENGINEERING INTERN, DABIRI RESEARCH GROUP, JANUARY 2021—AUGUST 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 in Java to enable remote operation and data collection.

### RESEARCHER, PURDUE MECHANICAL ENGINEERING DEPARTMENT, JUNE 2020—AUGUST 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 a team of five in creating software, integrated and delivered the final product to the customer.

### ENGINEERING INTERN, GECKO ROBOTICS, JULY—AUG 2019

- Designed, optimized, and manufactured parts with complex geometry using SolidWorks and Cura.
- Redesigned workspaces to improve worker safety, reducing exposure to fumes by over 50%.

## OTHER EXPERIENCE

- Created a Python toolkit for aggregating vehicle prices and analyzing trends within the used vehicle market.
- Designed and programmed an autonomous rover prototype for navigating rough terrain and delivering cargo.
- Repurposed miniature robots to autonomously play soccer with computer vision and Bluetooth communication.
- Implemented algorithmic investment strategies focused on financial return and growth, leveraging probabilistic methods, modern portfolio theory, and CAPM to optimize risk exposure and minimize portfolio drawdown.

## SKILLS

- **Programming Languages:** Python, C/C++, Bash/Shell, MATLAB, HTML, CSS, JavaScript
- **Development Tools:** PyTorch, TensorFlow, Keras, Flask, FastAPI, LangChain, SLURM
- **Databases & Platforms:** Microsoft Azure, AWS, MongoDB, SQL, Tableau
- **Engineering Tools:** Computational Fluid Dynamics, Thermal Analysis, SolidWorks, Ansys
- **Leadership & Project Management:** Jira, Hubspot, Trello, Notion
- **Marketing:** Canva, Google Ads, SEO