William F. Nuveen

San Francisco, CA • wnuveen3@gmail.com • <u>linkedin.com/in/williamnuveen</u> williamnuveen.github.io/portfolio/

PROFESSIONAL EXPERIENCE

OCADO TECHNOLOGY (FORMERLY KINDRED AI)

San Francisco, CA

Mechanical Engineer II - Robotics Product Development

Sept. 2022 - Present

- Contributed significantly to the end-to-end design & development of Ocado's first AI/ML driven robotic depalletizing system, resulting in a successful deployment at a London fulfillment center in 2024
- Increased automated robotic pick & placement accuracy from 75% to 98% through strategic selection and implementation of depth/RGB cameras, boosting system throughput by 30%
- Achieved 98% reliable computer vision measurements by designing and manufacturing depth/RGB camera sheet metal mounting and machined calibration solutions for the robotic depalletizing system and Kindred's Sort robot
- Collaborated in the design and prototyping of an electromechanical end-effector, enhancing payload capacity to 80
 lbs and improving item handling versatility
- Conducted load calculations and FEA analysis for securing a 1,250 lb robotic arm to a pedestal on concrete, specifying anchors and adhesives for 100% safety compliance and reliable installation
- Managed the cross-functional installation and integration of the San Francisco PoC depalletizing test cell
- Currently co-leading the hardware design of a portable trade show model for the robotic depalletizing system, aimed at enhancing brand visibility and driving sales growth

NEATO ROBOTICS

San Jose, CA

Jr. Mechanical Engineer - Product Design

Aug. 2020 - Sept. 2022

- Designed, prototyped, and manufactured injection-molded components for Neato's first commercial robotic vacuum (Nexaro NR1500) now sold globally by Vorwerk
- Redesigned a robotic vacuum drivetrain, improving motor efficiency, reducing noise levels by 30%, and cutting production costs by \$2 per unit
- Streamlining Neato's additive manufacturing operations, reducing design iteration time by 75% and saved \$20,000 in vendor costs annually
- Developed and scaled high volume robotic vacuum accessories (pet brush, fragrance dustbin filters), expanding the product line by 7 SKUs and driving increased accessory revenue
- Played a valuable role in the design of Neato's first self-emptying charging station and mopping robot, ensuring compatibility with future models and enhancing the UX
- Initiated and led Neato's emerging technologies R&D program, developing a breakthrough dust-sensing technology utilizing accelerometer & gyroscopic data leading to significant deep cleaning results

EDUCATION & CERTS.

MIAMI UNIVERSITY

Oxford, OH

B.S. in Engineering, Major in Mechanical Engineering

2016-2020

GD&T CERTIFICATION - [2-B Quality - ASME Y14.5-2009]

Toronto, ONT

TECHNICAL SKILLS

- Project Management: Arena & ARAS PLM, Confluence, Jira, BOM management
- Mechanical Engineering: Solidworks & Creo CAD, DFM&A, FEA, GD&T
- Prototyping: 3D Printing, CNC Machining, Injection Molding, Sheet Metal, Laser Cutting