Eugene Ng

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EXPERIENCE

Pratt & Whitney Feb 2017 – Present

Principal Engineer, Manufacturing Engineering & Operations

- Oversaw procurement of hundreds of capital equipment projects totaling more than $100M per year
  - Managed material handling automation equipment for machining/inspection processes in new Asheville site
  - Managed new visual inspection system capable of automatic defection and categorization
- Converted capital equipment Access database to SQL Server with Agilepoint front-end
- Established new quote approval operations workflow in Sharepoint which decreased process time by 50%

Presque Labs LLC Jul 2015 – Present

Co-Founder

- HeroX NextGen Cart Design Challenge winner for airport material transport (AMTC) concept to track and transport secured goods within an airport
  - Designed electrical circuit in KiCad and prototyped and fabricated PCB through OSHPark
  - Developed user interface and linked IoT sensors to SQL database using Python

EDUCATION

University of Connecticut May 2019 – Dec 2020

M. Eng, Electrical Engineering

Cornell University

M. Eng, Mechanical Engineering Jan 2016 – Jan 2017

B.S., Mechanical Engineering Aug 2012 – Jan 2016

PROJECTS

Nonlinear Optimal Control of the COVID-19 Pandemic in Connecticut

University of Connecticut

- Created a modified SEIR model of COVID-19 spread in Connecticut, and formulated a discrete, nonlinear, predictive, closed-loop feedback controller to minimize the number of infected
- Simulated mathematical model in Python using the GEKKO optimization suite

Arachnabot: Spider-Inspired Robot

Collective Embodied Intelligence Lab, Cornell University

- Analyzed, modeled, and simulated a to-scale jumping robot with spider-inspired joints in MATLAB, using a differential algebraic equation (DAE) method
- Directed micro-fabrication using FDM and SLA 3D printing methods

Cornell Concrete Canoe

Team Lead, Cornell University

- Coordinated and oversaw 6 subteams (aesthetics, analysis, business, mold, mix, and paddling) and 34 persons
- Introduced novel moisture sensors and concrete curing control
- Eliminated shrinkage cracking while increasing tensile and compressive strength of concrete

SKILLS

ANSYS, C#, CSS, Docker, HTML, JavaScript, KiCad, LaTeX, MATLAB, Microsoft Access, Nginx, Python, SolidWorks, Visual Basic for Applications (VBA), Structured Query Language (SQL), Wordpress