# Eugene Ng

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## EXECUTIVE SUMMARY

I am a technical project manager with 5+ years experience managing fast-paced and requirement-heavy military and commercial contracts. Projects are typically very customer-focused and results-oriented, requiring backbone in dealing with difficult suppliers or customers. In my free time I am a highly curious and active business owner, having won or finalized in multiple design challenges (HeroX, YCombinator) with Presque Labs LLC.

## EDUCATION

### M. ENG, ELECTRICAL ENGINEERING | UNIVERSITY OF CONNECTICUT
05/2019 - 12/2020 | Storrs, CT

### M. ENG, MECHANICAL ENGINEERING | CORNELL UNIVERSITY
01/2016 - 01/2017 | Ithaca NY

### B.S., MECHANICAL ENGINEERING | CORNELL UNIVERSITY
08/2012 - 01/2016 | Ithaca NY
Minors: English

## WORK HISTORY

### SENIOR PROJECT ENGINEER | RAYTHEON TECHNOLOGIES CORP
02/2017 - Present | East Hartford CT
Management of over 200 capital equipment projects totaling more than $100M to meet cost, time, and technical objectives. Focused on best-in-class automated manufacturing of aircraft components and material handling systems.

- Project Ranger Facility (2021) – Managed design and development of blades and vanes material handling automation for finish and inspection activity in Pratt & Whitney's new, state-of-the-art, 1M sq-ft facility, in Asheville, NC.
- Automatic Defect Detection System (2021) – Definition, development, and testing of new visual inspection system capable of automatically detecting and categorizing defects like nicks and dents on aircraft components. Helped with algorithm testing, training, and analysis to determine areas of continuous improvement.
- Capital Equipment Modernization (2020) – Design, implementation, training, and support of modern electronic tools that replaced old processes and workflows. Streamlined and simplified capital equipment process by up to 50% and improved tracking and visibility throughout. Project implementation completed in less than 6 months.
- Linear Friction Welder (2018) – Liaison between military and commercial teams in the US and Japan for the install of a large $10M linear friction welder. Earned trust of and resolved issues between many different supplier and customer teams.

### CO-FOUNDER | PRESQUE LABS LLC
07/2015 - Present | Erie PA
HeroX NextGen design challenge winner for airport material transport cart concept, and YCombinator finalist. Mobile app development company behind Context (a text message analytics application), and Revocube (a 3D puzzle game).

## PROJECTS & RELEVANT EXPERIENCE

### NONLINEAR OPTIMAL CONTROL OF THE COVID-19 PANDEMIC IN CONNECTICUT | UNIVERSITY OF CONNECTICUT
Storrs CT | <https://github.com/eugeneyng/SEIR_CT>
This paper attempts to model the spread of the disease in the state of Connecticut, and formulate a nonlinear closed-loop feedback controller to minimize the number of infected.

### WINNER | HEROX NEXTGEN CART DESIGN CHALLENGE, PRESQUE LABS LLC
Hartford CT | <https://www.herox.com/nextgen-cart-design-challenge>
Design and build of a next generation Airport Material Transport Cart, to track and transport secured goods from a central receiving center to retail stores, storage areas, and operation facilities within an airport. Created and fabricated entirety of electronic circuit board and developed Python code for user interface and sensors.

### ARACHNABOT: SPIDER-INSPIRED ROBOT | COLLECTIVE EMBODIED INTELLIGENCE LAB
Ithaca NY
Design, fabrication, modeling, and analysis of a to-scale jumping robot with spider-inspired joints. Led mechanical and pneumatic design and responsible for micro-fabrication using advanced 3D printing technologies

### CORNELL CONCRETE CANOE | CORNELL UNIVERSITY
Ithaca NY | <https://cornellconcretecanoe.com>
Project management of 30-person team for the ASCE Concrete Canoe Competition, including design and testing of different hulls, molds, and concrete mixes. $3^{rd}$ place finish (2016).

## SKILLS

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