

Byron Panrudkevich

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EDUCATION

STEVENS INSTITUTE OF TECHNOLOGY, HOBOKEN, NJ

GPA: 3.95/4.00

Bachelor of Engineering, Major in Mechanical Engineering, Minor in Economics

Coursework: Lean Six Sigma, Mechatronics, Modeling & Simulation, Manufacturing Processes, Control Systems, Fluid Mechanics, Introduction to Entrepreneurship, Game Theory, Discrete Math, International Business, Failure

WORK EXPERIENCE

CONSUMER PRODUCTS STARTUP, Boston, MA

Mechanical Engineer

February 2024 – Present

- Designed and implemented novel mechanisms for early stage consumer product, helping define the “how”
- Identified and documented failure modes of prototypes → proposed, designed, and tested solution paths

SHARKNINJA, Boston, MA

Shark R&D Mechanical Engineering Co-Op

August – December 2022, May – August 2023

- Conducted FMEA on EVT-DVT-PVT units, helping CarpetXpert achieve best in class performance at release
- Executed DOE for CarpetXpert brushroll, going from 3D printed prototype to tooled MP part (~40 iterations)
- Designed and constructed a PCBA reducing assembly/maintenance time by 90% for dozens of custom test rigs
- Led independent research on fluid delivery methods, providing knowledge base to inform future products

ENICA ENGINEERING, New York City, NY

HVAC Engineering Consulting Co-Op

August 2021 – December 2021

- Constructed energy optimization strategies with a team to earn \$800k in government incentives for a client
- Ensured proper pressurization of ICU's and Isolation Rooms with COVID patients across multiple hospitals
- Conducted airflow/pressure repairs via the Building Management System (BMS) in medical sterile spaces

CONSOLIDATED EDISON, New York City, NY

Electric Operations (EO) Business Cost Optimization Co-Op

February 2021 – May 2021

- Facilitated cost optimization initiatives within Electric Operations to achieve \$9.7m in year-end savings
- Conducted independent study highlighting \$200k/yr excess costs, outlined clear next steps to realize savings
- Co-hosted Design Thinking Seminar proposing Engineering Design principles for business applications

RESEARCH EXPERIENCE

ADVANCED MANIPULATOR (AM) LAB, Hoboken, NJ

Undergraduate Research Assistant

February 2020 – December 2023

- Designed and iterated hardware for a low cost underactuated robotic hand posed towards warehouse operations
- Developed a live position feedback system for an underwater Continuum Arm using Arduino, Linux, and ROS
- Presented reports to the AM Lab, Stevens Mechanical Engineering Department, and I&E Scholars Program

SKILLS

Software: SolidWorks, Flowsim, OnShape, MS Excel, Autodesk Inventor, Arduino IDE/C++, ROS, Python, Fusion 360, PTC Creo, Minitab, EasyEDA, CorelDraw, AutoCAD, Git, PPCL, LabView, MATLAB

Hardware: 3D Printing, CNC Machinery, Rapid Prototyping, PCBA Design, Airflow/Pressure Instruments

ACTIVITIES AND HOBBIES

- **Activities:** Tau Beta Pi NJA President, Resident Assistant, Club Ultimate Frisbee B Captain, Campus Tour Guide
- **Hobbies:** Rock Climbing, House Plants, 4x4 Vehicle Outfitting and Travel, Distance Running, Cello