

# Petros Sklavounos

NYC, NY 10012 | +1-646-427-7255 | [peter.sklavounos@yahoo.com](mailto:peter.sklavounos@yahoo.com) | <https://petrossklavounos.github.io>

## Education and Professional Certifications

**The Cooper Union for the Advancement of Science and Art** **New York, NY**  
BE Mechanical Engineering, *Cum Laude Honors Graduate*; Minor in Economics  
ME Mechanical Engineering  
FE Mechanical and OSHA 10 License February 2024

## Professional Experience

**Department of Buildings, Boiler Division** **New York, NY**  
*Mechanical Engineering Intern and Panelist for Engineering forum* June 2022 – October 2023

- Performed 30+ mechanical room and elevator inspections to check compliance with NYC Codes
- Standardized boiler inspections and improved process efficiency and safety compliance through a new checklist that was subsequently adopted by 50+ inspectors and insurance firms
- Developed technical training resources and safety operating procedures for all agencies in close collaboration with the Assistant Commissioner and Agency Directors

**KPMG Lower Gulf** **Dubai, UAE**  
*IT Department Intern* July 2019

- Implemented data conversion for entire client base in Microsoft Dynamics 365 Customer Relationship Management system. Cleansed 200+ records and eliminated duplicate entries

## Leadership and Select Projects

**Hemodialysis Needle Redesign** **2023 – Present**  
*Project Lead Co-Author of ASME IMECE Paper (in review)*

- Engineered a novel hemodialysis needle that is 93% more flexible at body temperature and conforms to vasculature, thus reducing patient discomfort and vascular trauma
- Manufactured a thermo-responsive, polymer blend needle using CNC machining and injection molding. Conducted tensile and buckling tests and compared empirical data to Ansys simulations

**The Cooper Union Hyperloop Team** **2021 – Present**  
*President and Frames Subsystem Lead*

- Lead five subsystems and 20+ team members. Manage \$30,000 in university funding
- Achieved 43% mass reduction by replacing steel beams with aluminium cross-sections while maintaining the design parameters

**Energy Efficiency Building Systems Project** **November 2023**  
*Project Lead*

- Refined CO<sub>2</sub> monitoring in the classroom and achieved 12% removal through an optimized sensor placement using Solidworks Flow Simulation, Python-based data analytics, and BMS software

**Machine Learning Projects** **June 2023**  
*Developer*

- Created an elevator maintenance predictor from sensor data, reducing downtime by 30%
- Attained 98% email spam detection accuracy using text patterns and algorithms

**Wind Tunnel Manufacturing Project** **May 2023**  
*Project Lead*

- Conceived and managed a \$2,000 project to replicate a Cooper Union wind tunnel test section, cutting costs by 60% through in-house production and sourcing from alternative industrial equipment suppliers

## Awards

- The Cooper Union President's Grant (2024)
- The Cooper Union Howard Silfin ME Internship Award (2023)
- The Duke of Edinburgh's International Award, Silver Standard (2018)

## Skills

- Technical proficiency: AutoCAD; Solidworks; Revit; MatLab; LaTeX; Ansys; Altair Hypermesh; Machining
- Debating: World Scholar's Cup Gold Medalist at Yale University, Vietnam, and UAE (2016 – 2017)
- Languages: Greek (fluent); French (conversational)

## Interests

- Juniors' coach and adults' golf caddie at Special Olympics World Games Abu Dhabi
- Junior Golf Champion, Dubai; handicap 9.0. Distinctions in junior tournaments (Greece, Cyprus, UAE)