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## Education

**Princeton University, Princeton, NJ**

*Grad. 05/2025*

B.S.E. in Mechanical and Aerospace Engineering, Minor in Visual Art

**GPA: 3.76/4.00**

- **Relevant Coursework:** Differential Equations, Linear Algebra, Optimization, Fluid Dynamics, Aircraft Dynamics, Automatic Control Systems, Aerospace Structures, Structure and Properties of Materials, Mechanical Design, Aircraft Design, Exhibition Issues and Methods, Advanced Questions in Photography, Lighting Design
- **Awards:**
  - **Engineering:** Morgan W. McKinzie '93 Senior Thesis Prize Fund, Fred Fox Class of 1939 Fund
  - **Visual Art:** Lawrence P. Wolfen '87 Senior Thesis Award, Sam Hutton Fund for the Arts

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## Sailing Research

**Design Optimization of International Moth Class Hydrofoils**, Adviser Luigi Martinelli

*09/2024-Present*

- Senior Thesis in Mechanical and Aerospace Engineering: Design, manufacturing, numerical and physical validation of hydrofoils for an International Moth Sailboat, making extensive use of CFD, including adjoint-based optimal design methods.

**Computational Methods for Spinnaker Aerodynamics**, Adviser Luigi Martinelli

*01/2024-05/2024*

- Junior Independent Work in Mechanical and Aerospace Engineering: Used ANSYS Fluent with meshing in Cadence Pointwise, performed steady RANS simulations over 1:15 scale model of an America's Cup Design (AC90). Resolved large-scale flow structures, including the leading edge vortex (LEV).

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## Other Projects

**Mechanical Lead | Autonomous Search and Rescue Robot [SaRR]**

*09/2023-12/2023*

- Led mechanical design and manufacturing for semester-long group design project with 9 person team.
- Successfully completed multiple autonomous runs of SaRR course 1 week prior to final demonstration.
- Completed all project goals, winning design competition, while remaining 33% under budget.

**TECNICA | Hudson Wilder**

*03/2023-04/2023*

- Manufactured full-scale aluminum prototypes using 3-Axis CNC Mill for collection of home design objects, debuting at Milan Design Week 2023.

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## Industry Experience

**Alpha+ Racing, Newport, RI**

**Shore Team - Rolex TP52 World Championship**

*07/2024*

- Performed daily maintenance on race yacht and chase boat, ensuring the team was able to start and finish every race of the regatta, achieving program all-time best result of 4th place.
- Took reconnaissance images of team's and competition's sail setups throughout regatta for analysis by sail trimmers, designers, and coaching team.
- Handled on-water hydration and nutrition, ensured athletes were adequately refueled between each race.

**Flux Marine, Bristol, RI**

**Mechanical & Marine Engineering Intern**

*05/2024 - 08/2024*

- Supported mechanical, powertrain, and industrial design teams by performing CFD studies on closed-loop coolant system and lower unit hydrodynamics, using conjugate heat transfer and volume-of-fluid algorithms.
- Conducted propeller selection testing under direct supervision of CEO, improving boat top speed by 15% while reducing continuous torque requirements by 15%.
- Designed propeller shaft fairing and end cone using CFD, cleaning wake field from lower unit to propeller.

**Doyle Sails Newport, Newport, RI**

**Sailmaker**

*06/2023-08/2023*

- Produced and finished Grand-Prix upwind sails for Doyle's largest international clients including Deep Blue (Botin 85), Platoon (TP52), and Interlodge (Botin 44, TP52).
- Quality proven in competition, with wins in the Menorca 52 Super Series Royal Cup (Platoon), TP52 World Championship (Platoon) and ClubSwan 50 Nations Trophy (Hatari).

# Jasper Waldman

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SailGP, *Chicago, IL*

## Wing / Rigging Department Intern

06/2022

- Assembled and maintained rigid wingsails for 9 boat SailGP Fleet, completing event with zero breakdowns.
- Supported tech team with daily craning and mooring operations, increasing operational efficiencies and maximizing sailing team's time on the water.

The Binnacle Yachting Equipment, *Halifax, NS, Canada*

## Sales Associate, Rigger

09/2020-05/2021

- Sourced special order parts from marine vendors, shipping them Canada-wide, creating an additional revenue stream for the business.
- Consulted with rigging clients to design optimal solutions, built systems to precise tolerances with same-day turnaround times.

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## Skills

- **Design:** ANSYS Fluent, Cadence Pointwise, ANSYS Mechanical, Solidworks, PTC Creo
- **Data Analysis:** MATLAB, Python, Simulink
- **Sailing:** Expedition, Sailmaking, Rigging
- **Manufacturing:** CNC Machining, 3D Printing, Laser Cutting
- **Office / Admin:** Microsoft Suite, Adobe Suite, Odoo ERP

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## Sailing

**Primary Positions:** Navigator, Headsail Trim, Bow

**World Sailing Categorization:** Group 1 / Amateur

**Nationality:** USA & Canada

## North East Keelboat Alliance (NEKA)

**Groupe 5 - USA 26 | Figaro 2 Mod | Navigator**

- Vineyard Race 2024: 3rd in Class, 5th ORC Overall, Youth Corinthian Trophy
  - Organized 4-person Youth Canadian team, podiuming in first event in the boat.

**Peacemaker - USA 52875 | Ker 11.5 | Headsail Trimmer**

- ORC World Championships 2024: 6th, Class B
- Safe Harbor Race Weekend 2023 & 2024
- NYYC Queen's Cup 2023

**Inception - USA 4921 | Judel/Vroljik HH42 | Headsail Trimmer**

- Block Island Race 2024
- Vineyard Race 2023
- Upcoming: Winter 2024 S.O.R.C., Transpacific Race 2025.

## Princeton University Sailing Team

**Keelboat Team Captain: 2022 - 2024**

- Founded in summer 2022, trained entirely novice crew to class victory at Intercollegiate Offshore Regatta 2023 and overall victory at Southern Collegiate Offshore Regatta 2024.

**Intercollegiate Coed Dinghy Team: 2021 - Present**

- Led team as skipper for 7 consecutive seasons, training 10+ crew and participating in 28+ regattas while serving on the Undergraduate officer board.

## Storm Racing

**Canadian Match Racing and IOD Team.** Helm: Peter Wickwire. Current WMRT Ranking: 10th

- Chester Race Week 2024: 1st, IOD Fleet, Main Trimmer
- Oakcliff July 2024 Grade 3: 2nd, Swedish Match 40, Bow
- Upcoming: IOD World Championship 2025