# Phillip C. Mann

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### **EDUCATION**

Davidson College Davidson, NC

Bachelor of Science, Physics, Minor in Computer Science

Expected May 2027

- GPA: 3.88
- Relevant Coursework: Programming, Data Structures, Calculus III, Linear Algebra, Classical Mechanics, Electricity & Magnetism

#### **Tuck School of Business at Dartmouth College**

Hanover, NH

Business Bridge Program

Summer 2024

- Participated in a 30-day program taught by MBA faculty, learning accounting, finance, microeconomics, marketing, and strategy
- Performed a team-based valuation of YETI Holdings, including financial and strategic assessments, a DCF analysis, and a final presentation
- Tuck Bridge Ambassador; represent, promote, and inform prospective students about Tuck Bridge

## **RELEVANT EXPERIENCE**

Aurelia Institute Cambridge, MA

Summer Intern

Summer 2025

- Contributed to the design and prototyping of self-assembling space habitats for autonomous in-orbit construction
- Designed and tested mechanical systems using CAD, 3D printing, and microcontrollers to improve deployment reliability
- Supported system integration, calibration, and wireless control testing under simulated microgravity conditions
- Collaborated with cross-functional teams to iterate on design parameters and performance metrics
- Assisted in a techno-economic study of space-based solar power, identifying key scalability and cost drivers

## Solar Powered Boat Independent Study at Davidson College

Davidson, NC

Engineering Co-Lead

May 2024 - Present

- Engineer structural, electrical, and mechanical components of the boat such as seating, roof, railings, and flooring while maintaining
  quality structural integrity, safety, and aesthetics.
- Design, prototype, and implement ideas for components on boat, including convertible roof, and seating and railing design
- Market the project to potential sponsors, secured partnership with Yamaha to for use of motors, batteries, and more
- Received grants and donations from physics department for parts through proposal and communications with school officials

### **Davidson Tiny House Project**

Davidson, NC

Volunteer Engineer

October 2023 - May 2024

- Transform ideas into reality such as temperature-regulation mechanisms, rainwater collection, plumbing, and design ideas
- Evaluate safety of work happening at worksite by ensuring protocols and safe practices are followed
- Collaborate with 20+ volunteers and supervisors to assist in construction processes, namely constructing walls, installing roofing and siding, wiring arduino systems, and painting

### **WORK EXPERIENCE**

Davidson College Davidson, NC

Makerspace Technician

August 2024 - Present

September 2023 - Present

- Support interdisciplinary projects by advising students on material selection, fabrication methods, and design feasibility
- Design and fabricate parts and prototypes for academic and personal projects, showcasing machining and prototyping skills
- Collaborate with ten team members to develop and enforce safety protocols, reducing incidents & enhancing user confidence
- Assist with the safe and effective use of tools, including 3D printers, laser cutters, CNC machines, and hand tools

#### STUDENT ACTIVITIES

# **Society of Physics Students**

Davidson, NC

Member

- Attend bi-weekly guest lectures, industry panels, and networking events with professionals in STEM fields
- Conducted and presented group research, ie. boat and trebuchet project aimed at at college symposium

Collaborated with faculty and peers on hands-on experiments, technical projects, and academic discussions

# **SKILLS & INTERESTS**

- Technical: Arduino, Python, Java, Fusion, Microsoft Office (Excel, Word, PowerPoint) and similar platforms
- Language: Spanish (conversational)
- Interests: New York sports enthusiast, avid golfer, soccer player, and top ranked junior ski racer, attempting the 7 summits