**Madeline Doherty EIT**

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**College Pursuit:**  Engineering Management, Old Dominion University

**Graduation:** May 2022

**Profile:** Dynamic Mechanical Engineer with excellent communication, presentation, leadership and problem-solving skills with a high level of creativity and a keen ability to apply theory to practical applications. Successful leader and team player with drive to win and succeed.

**Areas of Effectiveness:** Leadership, problem solving, creativity, self-driven, teamwork, competitiveness,

**Education**

Old Dominion University-Norfolk, VA

**Master of Engineering Management** May 2022

**Bachelor of Science in Mechanical Engineering (B.S.M.E.)**  May 2020

**Minor:** Engineering Management

GPA: 3.71, Dean’s List: 8 consecutive semesters, Fall Freshman Year-Spring Senior Year

**Coursework and Training:**

**Fundamentals Of Engineering:**  Passed the FE Exam December 2019

**Mechanics of Fluids:** Fluid statics, open-channel flow, dimensional analysis, and fluid boundary layers

**Solid Mechanics:** Stress and strain and their transformation**.**

**Mechanical Engineering Design:** Machine design with a focus in fatigue design for gears, bearings, springs, and combined mechanical systems

**Thermodynamics:** Physical properties, ideal and real gases, psychometrics, gas turbines, jet engines, and consequences of thermodynamic cycles

**Material Science:** Principles of material science and relationship between structure and properties

**Project Design and Management:** Additive Manufacturing with Fused Deposition Modeling/FDM Printers, Mathematical Modeling of Testing Data, Optimization of Polylactide Acid/PLA Printing

**Design of Complex Systems:** Dynamic Systems, Control Theory, sensors, actuators and signals, instrumentation, AutoCAD, Modern Materials, Bio-Inspired Robotics, Mechatronic Systems Design, Arduino Programming, Matlab Modeling

**Project Management:** Project Management, Agile, Supply Chain Management, Operations Research

Lloyd C. Bird High School Chesterfield, VA

**Governors Academy of Engineering** Sept. 2012-June 2016

GPA: 4.20, Advanced Degree with Virginia Governor’s Seal for Engineering Studies

**Related Coursework:** Public Speaking, Project Management, Statics, Dynamics

**Winner of 2016 Senior Engineering Hovercraft Competition** – Mad Max

**Highest grade** – Junior Engineering Seminar

**Certification:** AutoDesk Inventor & AutoCAD Certified User (Certiport Verified)

**Athletics:** Field Hockey Varsity 3 Years

Virginia 2015 Conference 12, 1st Team, Defense, and All-Academic Honors

**Intercollegiate Athletics:**

**Old Dominion University, Division I Women’s Rowing Team** Aug. 2016 - present

Walked on Freshman Year and became Captain and Stroke of 1V8 in Senior Year

Full time student with over 20 hours of training per week

2019: Named to Conference USA (C-USA) Honor Roll, Big 12 First Academic Team

2018: Named to C-USA Honor Roll, Recognized as Big 12 Scholar Athlete

2017: Named to C-USA Honor Roll, Recognized as Big 12 Scholar Athlete

**Student Athletic Accomplishments in NCAA Division 1 Rowing:**

2020: Team Captain and Stroke of 1V8

2019: American Athletic Conference (AAC) Rowing Championships - 1V4

2018: Big 12 Rowing Championships - 2V8

2017: Big 12 Championships - 3V8 – Stroke

2016: Head of the Hooch Regatta - Novice 8

**First Robotics Competition – FRC Team 346, FTC Team 7278 & 11868**

Joined First Robotics Competition and increased responsibility to become Chief Technology Officer (CTO) of a top team in Mid-Atlantic Region. Became well versed in mechanical, electrical, pneumatics, CAD and documentation. Led First Robotics Team (FTC) as Mentor and Coach for startup team

2016: FRC Team 346, RoboHawks - Advanced to Worlds, finished 9th in Hopper Division

Won Mid-Atlantic Regional, Won Virginia Qualifier

Mentor/Coach for FTC Team 11868, G(I2R)L Power, rookie all-girl team

2015: Chief Technical Officer (CTO)FRC Team 346, Robohawks – FIRST Robotics

Won “Quality in Design” Award (Recycle Rush Game)

Head Coach of FTC Team 7278, LibraryBots

Qualified for State FTC Finals, February 2016

Won FTC Motivate Award, Northern Virginia Qualifier

**Organizations:**

**Society of Women Engineers** – SWENext Member & Ambassador 2015 - 2020

**Tau Beta Pi Engineering Honors Society** Member 2018, Vice President – 2019-2020

**Venture Crew 2880** - President; Treasurer, Historian, Quartermaster2012-2017:

**Volunteering** (2012 to present):

Organized the Grace Rett Memorial Row raising money to assist fellow rowers in need

Community Service Medal-- RocketBoosters, 4 yr. award (more than 100 hours of service)

Volunteer at McGuire Veteran Administration Hospital, Richmond VA

Organized and led “Restock the Cinderella Closet”

Collected more than 40 Prom dresses to replace those lost in a fire

**Leadership** **in STEM** (2012 – 2016)

Math Tutor O.B. Gates Elementary School

Mentored - rookie all girls robotics team for FTC Robotics

STEM presenter at Bellwood Elementary school science classes

President of French Honors Society