

KELLY ROGERS

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OBJECTIVE

After completion of my Bachelor of Science Degree in Mechanical Engineering and Master of Science Degree in Entrepreneurship and Innovative Ventures, both from RIT, I am looking to further my education through a PhD curriculum surrounding mathematics and engineering with a focus on the health, longevity, and sustainability of the Earth's oceans.

EDUCATION

ROCHESTER INSTITUTE OF TECHNOLOGY

BACHELOR OF SCIENCE, MECHANICAL ENGINEERING

MAY 2019

Minor in Mathematics

MASTER OF SCIENCE, ENTREPRENEURSHIP AND INNOVATIVE VENTURES

DECEMBER 2020

GPA 3.50/4.0

WORK EXPERIENCE

AHOLD-DELHAIZE, QUALITY ASSURANCE/PRODUCT OWNERSHIP CO-OP

JANUARY 2018 – JUNE 2018; QUINCY, MA

Development, monitoring and reporting of customer requirements for interdisciplinary assignments

Documentation and validation of front end, back end, and UX requirements for multiple different projects

Testing for usability of Raspberry Pi's, Arduino's, Adobe InDesign, SQL, Java, Javascript, and React programs

BORG WARNER INC., PRODUCT ENGINEERING CO-OP

JANUARY 2017 – AUGUST 2017; ITHACA, NY

Data gathering for metrics including root cause analysis, lifetime testing, and design specifications

Designing and editing procedures for increased efficiency levels for transmission components

OXBO INTERNATIONAL CORPORATION, ENGINEERING PUBLICATIONS INTERN

MAY 2016 – AUGUST 2016; BYRON, NY

Utilizing Solidworkds, Photoshop and Adobe Illustrator to produce online manuals of agricultural harvesting products

LEADERSHIP ROLES

ASSISTANT SOCCER COACH – RIT WOMEN'S SOCCER

Helping in the day to day operations of coaching a colligate soccer program such as developing training sessions, game planning, and overall management of team sponsored activities

Individual activities include preparation and execution of daily goalkeeper training activities that are tailored to each student-athlete's personal goals with regard to the team's overall performance

GOALKEEPER COACH – EMPIRE REVOLUTIONS

Weekly sessions include goalkeeper specific training modules for youth soccer players age 8-18

Coaching points include the development and understanding of the game of soccer, the biomechanics of the goalkeeping role, and the expectations of the position within a team setting for high level athletes in the immediate Rochester area

GOALKEEPER COACH – OLYMPIC DEVELOPMENT PROGRAM

Monthly sessions with elite high-school aged athletes from the Western New York region

Coaching high level athletes to have a greater level of understanding of the goalkeeper position and how it pertains to the overall success of the team

Focus is primarily on the execution of tactical and technical mastery regarding the goalkeeper position

PROJECTS AND RESEARCH

S.J. Weinstein, M.S. Holland, K.E. Rogers, N. S. Barow. *Physica D 411* (2020).

Use of the Susceptible-Exposed-Infected-Recovered (SEIR) model to extract fits from the available COVID-19 data from John-Hopkins University and predict future behaviors by using fitting-parameters as input to new analytic form and assess convergence
MATLAB programming was utilized to further understanding of asymptotic approximants and numerical methods for ordinary differential equations pertaining to epidemic models

MICROPLASTIC CONCENTRATIONS IN LAKE ONTARIO

With Matthew Hoffman;

Research focused on discharge rate, drainage area and annual flow of rivers draining into and out of Lake Ontario from hydrodynamic data made available by the US and Canadian gauge sites

Used to develop mathematical processes for modeling microplastic concentrations from fresh- and stormwater sources in Lake Ontario

SENIOR DESIGN

Designing, modeling, and building a fully functional manufacturing system for accordion reed valves with a team composed of interdisciplinary engineers

Responsibilities included 3D modeling, analytical proofs, failure testing, structural design, subsystem interfacing, documentation regarding organization of the project's progress

ACCOLADES

DEAN'S LIST

Fall 2014; Spring 2015; Spring 2019

TIGER POWER DEN ATHLETE OF THE YEAR

RIT Athletics, 2015

LIBERTY LEAGUE ALL-ACADEMIC TEAM

2014-2018

FIRST TEAM LIBERTY LEAGUE ALL-CONFERENCE

Fall 2017

THIRD TEAM UNITED SOCCER COACHES NCAA DIVISION III WOMEN'S ALL-EAST REGION

Fall 2017

SECOND TEAM UNITED SOCCER COACHES NCAA DIVISION III WOMEN'S SCHOLAR ALL-EAST REGION

Fall 2017

ADDITIONAL ACTIVITIES

RIT VARSITY WOMEN'S SOCCER TEAM

August 2014 – November 2017

SKI COMPANY ROCHESTER – SNOWBOARD SALES

November 2018 - Present

SKILLS

SOFTWARE

Microsoft Office, Matlab, SQL, PL/SQL, Creo, Solidworks, AutoCAD, Photoshop, Adobe InDesign, Illustrator; Familiarity with Java, Javascript, React, Python, and C++

HARDWARE

Drill press, Lathe, Tinus Olsen 300, 3D Printers