Daniel Rosenthal

Philadelphia, PA | Willing to re-locate | daniel.b.rosenthal@gmail.com | 215-901-7501
https://github.com/danielrosenthal2 | https://www.linkedin.com/in/daniel-b-rosenthal/

EDUCATION

Wake Forest University, *Winston-Salem, NC* *May 2023 Graduation*
B.S. Engineering, Concentration: Electrical/Computer Engineering
Minors: Computer Science & Mathematics
GPA: 3.68; **Dean's List:** 2019, 2020, 2021, 2022; ***Study Abroad:*** *London, Wake Forest Worrell House, Fall 2021*
Technical Skills: Proficient in Python, Java, HTML & CSS, Git, MATLAB, R, Arduino, Raspberry Pi, Fusion 360, AWS EC2, Microsoft Suite, Google Suite, Adobe Creative Cloud, Blender, CHORDS
Relevant Coursework: Data Structures & Algorithms, Statistical Models, Computational Modeling, Fundamentals of Computer Science, Linear Algebra & Differential Equations, Control Systems/Instrumentation, Multivariable Calculus, Discrete Mathematics

ENGINEERING, COMPUTER SCIENCE, AND DATA SCIENCE EXPERIENCE

Stereo Vision Wildfire Drone Research Winston-Salem, NC
Research Assistant *January 2021 - Present*
- Write Python scripts to automate testing of data transfer frequency from Raspberry Pi's to CHORDS portal hosted on AWS EC2
  - Sending atmospheric condition data more often to increase data collection frequency up to 100 times per second
- Implement Raspberry Pis, Stereopis, and AI to create a stereo vision camera system for use on drones monitoring wildfires to observe the intensity of fires and to improve the environmental recovery process
  - Testing computer vision AI programs like OpenCV to identify and classify objects with Raspberry Pi camera
- Research potential single-board computers, stereovision HATs, cameras, and computer vision platforms for drones and processing analysis with fellow student researcher

Research and Design Projects Winston-Salem, NC
Engineering and Computer Science Classes *September 2019 - Present*
- Created UltrasonicEyes Toy: a 3D-printed project with an Arduino, ultrasonic sensors, and LED matrices that responds to its environment and eyes 'follow' user across the room
- Developed mathematical models in MATLAB to solve real-world problems, including 3D graphing and optimization
  - Final project simulated temperature throughout A/C cooling conduit utilizing linear regression, polynomial regression, Euler's method
- Used Arduino sensors to determine whether the roof of a campus building had the potential to be converted into a green roof and used MATLAB to analyze data and present findings to a panel of Professors

Sports Analytics Club Winston-Salem, NC
Club Member *September 2019 - Present*
- Use R to uncover statistics that have the largest impact on winning and run Monte Carlo simulations to simulate the NBA Playoffs
- Work with WFU Football to learn Smartabase Athlete Management System and adapt it to WFU Football Program's needs

PROFESSIONAL EXPERIENCE

Golf cart and course attendant Trenton, NJ
Trenton Country Club *May 2021 - August 2021*
- Provided timely and excellent customer service to elite club members and guests of special events

Outdoor trip leader Winston-Salem, NC
Outdoor Pursuits *May 2020 - January 2022*
- Responsible for groups of up to 8 students on adventures including hiking, slacklining, biking, and paddleboarding
- Utilized organizational skills to manage gear rental desk and rock climbing wall to ensure and maintain efficiency & safety

Windsurfing counselor Alton Bay, NH
Camp Kabeyun *Summer 2018/2019*
- Collaborated with staff to supervise a cabin of 11-13 year-olds; developed leadership and character as well as personal growth

Photographer/Videographer/Graphic designer Fairless Hills, PA
WBCB 1490 Radio Station/Website *September 2017 - May 2019*
- Increased station's social media presence by producing highlight videos of local high school basketball and football games
- Traveled to basketball games throughout Pennsylvania and New Jersey to provide video and photo coverage

ADDITIONAL INFORMATION

Personal Interests: Philadelphia 76ers & Eagles, WFU Basketball & Football, Film Photography, Graphic Design, Concerts, Wakeboarding, Windsurfing, Surfing, Streetwear, Running, Music, Podcasts, Basketball, Golf
Academic Interests: Web & App Development, Use of Drones to Solve Environmental & Everyday Problems, Sports Analytics