Flannery McNair, EIT

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EDUCATION

Nicholas School of the Environment, Duke University Durham, NC
Master of Environmental Management May 2027
Concentrations: Terrestrial and Freshwater Systems, Env. Analytics and Modeling
Relevant Coursework: Environmental Health, Statistical Modeling, Spatial Ecology, Env. Machine Learning

Carnegie Mellon University Pittsburgh, PA
Bachelor of Science in Environmental Engineering May 2025
Capstone Project: Bedford Borough Drinking Water Treatment Plant Redesign

WORK EXPERIENCE

Appalachian Rivers Monitoring Fellow | The Nature Conservancy | Full Time May 2026-Aug 2026
- Led a study on water quality at the South Toe River in western NC.
- Collected water samples, turbidity measurements, and created a model to predict SSC from turbidity.
- Continuing work for Nicholas School Master's Project.

Wetland Restoration Research Assistant | Duke Wetland Center | Part Time Aug 2025-May 2026
- Assisted with daily lab operations such as water filtration, sample preparation, and sample analysis.
- Participated in field data collection of water samples from wetlands and ponds on campus.

Design Engineering Intern | Ethos Collaborative | Part Time Jan 2025-May 2025
- Assisted with ecological design and stormwater control work through AutoCAD, InDesign, and QGIS.
- Attended weekly staff meetings and did regular check-ins to evaluate progress.

Field Engineering Intern | Allan Myers | Full Time May 2024-Aug 2024
- Assisted with creating look ahead schedules, preparing takeoffs, and assembling work plans for several construction projects at the DC Wastewater Treatment Plant.
- Attended site visits to evaluate daily progress and updated the team at weekly meetings.

PROJECT EXPERIENCE

Water Treatment Plant Redesign | Civil and Environmental Engineering Capstone Aug 2024 - Dec 2024
- Attended a site visit and evaluated shortcomings of the Bedford Borough drinking water treatment plant.
- Created a preliminary design, conceptual design, and detailed design while working with a technical advisor employed at Stiffler McGraw.

Antibiotic Treatment for Citrus Trees | Lowry Lab | Carnegie Mellon University Dec 2022 - Aug 2023
- Designed an initial procedure to test how effectively inductively coupled plasma mass spectrometry (ICP-MS) could measure the presence of a chosen metal in plant material.
- Designed procedure to test translocation of nanoparticles containing Vanadium throughout citrus trees.

LEADERSHIP EXPERIENCE

Director of Technical Training | Scotch'n'Soda Theatre | Pittsburgh, PA May 2024 - May 2025
- Organized weekly training sessions for general organization members led by tech area heads.
- Updated documentation after productions to reflect successful processes and areas for improvement.

Board of Directors | Secretary | Scotch'n'Soda Theatre | Pittsburgh, PA May 2023 - May 2024
- Attended weekly meetings and contributed to strategic planning and governance decisions.
- Reconstructed org documentation and created new feedback channels and procedures.

SKILLS

Certifications: Engineer in Training
Software: Microsoft Office, AutoCAD, SketchUp, Python, MATLAB, R, Bluebeam Revu, ArcGIS, QGIS