

Zico Arachie

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Availability: July-December 2023

Education

Rochester Institute of Technology

Bachelor of Science in Civil Engineering Technology, Minor in Economics

Rochester, NY

Expected May 2024

GPA: 3.76/4.00

Honors: College of Engineering Technology Dean's List, RIT Honors Program, American Society of Civil Engineers (ASCE) Undergraduate Scholarship Award

Campus Activities: College Activities Board (Office Manager), Student Life Center Main Office (Office Assistant), National Society of Black Engineers (Member), Associated General Contractors of America (Member), Organization of African Students (Event Planner and Advisor)

Courses: Hydraulics, Structural Analysis with STAAD, Land Development with Civil 3D, Computer Aided Design and Drafting (AutoCAD), Materials of Construction, Civil Engineering Graphics, Statics, Strength of Materials, Surveying, Elements of Building Construction, Elementary Structures, Elementary Soil Mechanics, Foundation Engineering, Principles of Dynamics, Structural Steel Design, Design of Highway Bridges, Highway Design, Principles of Water and Wastewater Treatment

Work and Project Experience

Bao's research group

Structural Engineering Research Assistant

Rochester, NY

August 2022 – Present

- Evaluating the structural resiliency of public schools as an emergency shelter in natural disasters
- Analyzing a generic 3-story steel framing K-12 school building based on the design loads and load combinations specified in ASCE-7: Minimum Design Loads for Buildings and Other Structures.
- Comparing design criteria of the building from the past two decades
- Evaluating the structural capacity of the building as an emergency shelter/public assembly (Risk Category IV) during and post disasters, versus a regular school building (Risk Category II or III)
- Combining full live loads with natural disaster loads to evaluate the school building capacity as a community resiliency hub.
- Assessing the structural resilience level of school buildings functioning as emergency shelters in natural disasters from results

Align Engineering

Steel Design Project

Rochester, NY

August 2022 – December 2022

- Designed a detailed steel 3-story classroom building
- Determined all design loads on the structure
- Designed the roof deck, floor deck, beams, girders, columns, connections, bracing, foundation, and roofing structure for the building
- Designed a 3D STAAD model of the school building using STAAD.Pro to ensure adequacy
- Exceptional communication skills supported by frequent progress reports and presentation of findings to the class

Labella Associates DPC

Civil Engineering Co-op

Rochester, NY

January 2022 – July 2022

- Performed stormwater pollution prevention plan inspections and generated reports for ongoing K-12 and solar projects
- Visited project sites to collect data during design and construction
- Prepared civil engineering design drawings including solar sites
- Created concept plans for asphalt parking lots
- Prepared aerial plans using Pictometry (CONNECTExplorer) and Global Mapper
- Used Bluebeam to collaborate with other engineers and markup PDFs
- Conducted zoning review to understand project feasibility and compliance with zoning regulations
- Worked with project managers to estimate capital expenditure using Microsoft excel

Software and Certifications

Software: AutoCAD, Civil 3D, Revit, Bluebeam, STAAD.Pro, MicroStation, OpenRoads, Microsoft Office

Certifications: New York State Department of Environmental Conservation Erosion and Sediment Control Training

Leadership Experience

- Office Manager of the RIT College Activities Board
- Event Planner and Advisor of the RIT Organization of African Students

August 2020 – Present

August 2020 – May 2021

Interests: Traveling, Music, DJ Entertainment, Dancing, Soccer, Fitness and Sports.