

Michael Gareth Vaughan, P.E.

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Portfolio Website: <https://www.michaelvaughanportfolio.com/>

GitHub Repository: <https://github.com/mgvaughan>

Summary

Highly motivated Professional Engineer looking to increase my knowledge and experience in Software Engineering while working in a fast-paced work environment.

Technical Skills

- | | | | |
|-------------------|-------------------|--------------|--------------------|
| • React | • Node.js/Express | • JavaScript | • TypeScript |
| • Python | • HTML | • CSS | • Bootstrap |
| • MySQL Workbench | • MongoDB | • AutoCAD | • Microsoft Office |

Portfolio Projects

Front-End Admin Dashboard

Built a Front-End Admin dashboard using React, Material UI, Nivo Charts, Formik, Yup, Full Calendar, and Data Grid. In this project, I built an application that incorporated light and dark modes, 4 different chart types, 3 different data table types, an FAQ page, a Form Page, and Calendar Integration.

Full-Stack Social Media Blogging Website

Built a Full-Stack Blogging Website using, React, Node.js, Express, and MySQL Workbench. In this project, I built an application that allows a user to read, post, edit and delete blogs.

Tetris Game Using React/Tetris Game Using JavaScript

Built two different versions of the Tetris Game to gain more practice using both React and JavaScript. In the React version, I incorporated both React and custom hooks. In the JavaScript version, I incorporated CSS styling and array manipulation.

Experience

Schnabel (Marietta, GA)

Project Manager, Pre-Construction

January 2020 – August 2022

Construction Manager

June 2017 - December 2019

At Schnabel, I operated as both a Pre-Construction & Construction Project Manager. While working as a Construction Project Manager, I managed projects in multiple states, and typically managed multiple projects simultaneously. For FY 2022, I was a top 5 Construction Project Manager for Schnabel with reference to Project Income (\$) earned.

As a Pre-Construction Project Manager, I completed the following responsibilities for bids:

- Reviewed bid documents (Project Drawings, Specifications, Geotech Reports).
- Designed preliminary shoring layout drawings and calculations.
- Utilized the preliminary shoring design to produce the material quantity take-offs, schedule, and budget for the work.
- Wrote and submitted a proposal for the shoring work needed on given project.
- Attended pre-construction meetings to network with clients, and to discuss submitted bid proposal, work schedule, and workflow.

As the Construction Project Manager, I completed the following responsibilities for projects:

- Reviewed construction documents (Project Drawings, Specifications, Geotech Reports).
- Finalized the design for the shoring walls needed for a given project: Produced the calculation package for the designed system and oversaw the production of the shop drawings for the work.
- Executed material quantity take-offs based on project shop drawings. Utilized this information to generate accurate overall project schedule and budget.
- Negotiated contract and change orders with General Contractors.

- Created project specific safety documents and General Contractor's required submittal documents.
- Ordered and scheduled delivery of essential materials and equipment needed for completion of project.
- Effectively communicated schedule, and timely communicated foreseeable issues at client meetings.
- Completed all project specific closeout documents.

Leadership Positions:

- Held the role of Regional Safety Representative from 03/2019 to 10/2022. The responsibilities for this role were to represent our region in company Safety Committee Meetings, as well as host Annual Regional Safety Meetings for engineers and key field personnel.
- Selected as a Mentor for Schnabel's Pilot Mentorship Program for Summer 2022 Interns.
- Performed reviews of colleague's shop drawings, calculations, budgets, and proposals.

Groundforce Shorco (U.K.)

Technical Services Engineer

August 2016 - March 2017

Graduate Engineer

October 2014 - July 2016

Under both titles, I designed increasingly complex temporary shoring systems. I designed and priced more than 1,300 excavations varying in size from small excavations up to large cofferdams with multiple raking struts.

- Reviewed Geotech Reports and discussed with clients their excavation requirements.
- Designed temporary shoring system to meet excavation requirements.
- Drafted AutoCAD drawings of designed shoring system.
- Produced estimate for cost of materials to be installed in shoring system design.
- Supported sales personnel in the field with technical knowledge.

ECS Southeast, LLC (Marietta, GA)

Staff Engineer

March 2013 - June 2014

- Helped manage geotechnical projects from beginning to end.
- Assisted writing pre-construction soil investigation reports.
- Created report figures using AutoCAD.
- Supervised SPT, HVAC, and Airtrack Drilling, GeoPier Installations, Test Pit Excavations.
- Performed WDCP, DCP, and Hand Auger field work.
- Received Caisson Pile and Post Tension Cable Inspection Training.
- Classified soil samples and performed soil lab testing.

Education

Covalence Fullstack Engineering Bootcamp (Molecular Program)

December 2022

Georgia Institute of Technology

December 2012

Bachelor of Science in Civil Engineering

- Concentrations: Structural, Geotechnical, and Environmental Engineering

Achievements

P.E. Status

December 12, 2020

- Earned Georgia Professional Engineering License # PE046597

Eagle Scout

Certificates

Harvard Business School Online Negotiation Mastery Course

August 24, 2022

AMA Critical Thinking Course

August 17, 2022

University of Michigan: Python for Everybody Specialization (5 Course Certificate)

March 9, 2022

ADSC Field Manager Course

February 18, 2022

FranklinCovey Time Management Essentials Course

December 5, 2019

OSHA 30

June 6, 2017

Interests

Kayaking, Hiking, Tennis, History Podcasts