

# 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 |
| • Next.js | • HTML            | • MySQL Workbench  | • MongoDB    |
| • CSS     | • Tailwind        | • Bootstrap        | • Contentful |
| • Python  | • AutoCAD         | • Microsoft Office |              |

## Portfolio Projects

### **Full-Stack Admin Dashboard**

Built a Full-Stack Admin dashboard using the MERN stack, Material UI, Nivo Charts, Formik, Yup, Full Calendar, and Data Grid. The website incorporates light and dark modes, 4 different chart types, 3 different data table types, an FAQ page, a Form Page, and Calendar Integration.

### **Front-End Gym Website**

Built a front-end example website for a gym. I used React and Typescript, Tailwind, and animations to create this realistic website.

## Experience

### **Freelance Web Developer (Marietta, GA)**

#### **Website Developer**

*December 2022 – Present*

#### **Drew's Plant Nursery**

Building a website that uses Next.js and the headless CMS Contentful that showcases the inventory Drew's Plant Nursery will be selling at their semi-annual plant sales. This website allows their business to advance from a simple mailing list that lists, to a website where buyers can see and learn all about the 200+ plants prior to the sale.

### **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 Full-Stack 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*

##### **ADSC Field Manager Course**

*December 5, 2019*

#### **Interests**

Kayaking, Hiking, Tennis, History Podcasts, Computer Science & Programming