

# Bill Kerr

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## TECHNICAL SKILLS

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### Backend Technologies

- NodeJS/Django/GoFiber
- REST API design/consumption
- Docker, Kubernetes, Traefik/Nginx
- NATS Streaming Server
- MySQL, PostgreSQL, MongoDB

### Frontend Frameworks/Tools

- React, Svelte, AlpineJS
- Redux, Formik, TailwindCSS

### Web Services

- AWS, Heroku, DigitalOcean, Netlify, Firebase

### Languages/Source Control/CI

- TypeScript/JavaScript
- Python
- Go
- HTML/CSS
- Git, Github, TravisCI

## EDUCATION

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### Drexel University

Bachelor of Science in Civil Engineering • 3.7 GPA (Magna Cum Laude)

Philadelphia, PA

June 2017

## WORK EXPERIENCE

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### James J. Anderson Construction Co., Inc.

Engineer

Philadelphia, PA

June 2017 - Present

- Design, develop, and deploy custom software solutions to streamline existing processes and improve accessibility of project data.
- Implement and troubleshoot 3D machine control technology for grading and paving operations.
- Collaborate with project team members to plan, schedule, and execute project objectives.
- Generate extensive job cost analyses, including projections of future work and cost-to-date breakdowns.
- Developed & deployed [company website](#) using HUGO, TailwindCSS, AlpineJS, and Netlify.

## PROJECT EXPERIENCE

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### Force Account Generator (<https://force-account-generator.herokuapp.com>)

- Designed and deployed a web application that reads in Excel data and serves a generated PDF form.
- Built full-stack application with Django, utilizing asynchronous tasks, S3 storage, and a reactive frontend.
- Reduced workload by automating the form-filling process, eliminating hundreds of hours of data entry.

### Ticket Crawler (<https://github.com/bk7987/ticket-crawler>)

- Built Dockerized application that automatically scrapes material ticketing service website, assembles PDFs based on material type, stores data in a PostgreSQL database, and emails PDFs to recipients.

### Complete Tabs (<https://github.com/bk7987/complete-tabs>)

- Designed a Python application that reads PDF contract drawings and extracts information to a sortable and filterable Excel spreadsheet for simplified jobsite data consumption.
- Created a fully-featured API (NodeJS/TypeScript) for all CRUD operations relating to job contract data.

### Timecards (<https://github.com/bk7987/timecards>)

- Developing web application that aggregates company timecard data to an accessible, centralized location for simplified review and analysis.
- Designed backend server API, written in Go, that continuously retrieves and stores data from a 3rd party API and exposes the data for client-side consumption.
- Creating React/TypeScript frontend utilizing Redux state management and continuous polling of API for realtime data updates.

### BlackBat Project

- Contributed as part of a multi-disciplinary team to design and deploy a weather-resistant, drone-mounted data collection system (Java) for Aramasuisse (Switzerland Office for Defence Procurement).