

Curriculum Vitae

Personal Information

Name: Clayton S. Cook
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Career Overview

A trained geotechnical engineer who loves to take data, organize it, and bring it to life through web-based Python solutions. My current role at the Kentucky Transportation Cabinet primarily consists of geotechnical design work, but I'm looking to transition into a position that is focused around making web or programmatic based solutions. I recently built three separate Python web applications in Django: 1) to organize 60+ online Irish music sessions, 2) mixing and matching Irish tune audio files for practice, and 3) a GIS web app for organizing and seeing geotechnical boring information. I am currently looking for a full stack development position to further develop my skills in web development and solving problems through code.

Current Experiences

Python Developer Mindset Graduate

May 2021 – July 2021

Was part of a 10-week python programming mentorship program where I built two full Django web applications from the ground up and deployed them onto AWS under direct mentorship from Bob Belderbos of PyBites.

- Audio Web Application for Mixing and Matching Irish Tunes For Practice
 - <http://ec2-54-89-158-149.compute-1.amazonaws.com:8000/>
- GIS web application for seeing and organizing geotechnical boring information
- Learned to build quality python code through the use of git, python design patterns, docker, use of the cloud through AWS and the process of code testing

Maintainer of www.VGSDB.com Web Application

Jan. 2021 - Present

Built a web application with Django to navigate previous YouTube live streamed online sessions by Shannon and Matt Heaton (of Boston, MA) so that the community that was attending could find and access tunes that were played easily after the fact. Built the web applications using Django, Bootstrap, Youtube API, and deployed on AWS.

Transportation Engineer II at Kentucky Transportation Cabinet

Dec 2020 - Present

Working as a Professional Certified Geotechnical Engineer within the Geotechnical Branch, Foundation Design Section with responsibilities such as:

- Develop Geotechnical Recommendations for Bridges, Culverts, Retaining Walls, and Landslide projects throughout the state of Kentucky

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- Oversight of special projects that involve non-destructive testing of drilled shafts
- The use of in-house Cone Penetration Testing during geotechnical investigations to add in design
- Developing 2D and 3D MicroStation models for subsurface data
- Give Professional Engineering exam prep course over Geotech concepts for internal employees

Previous Experiences

Transportation Engineer I at Kentucky Transportation Cabinet

May 2019 – Dec. 2020

Engineer-In-Training I and II at Kentucky Transportation Cabinet

Aug. 2015 – May 2019

Working as a Geotechnical Engineer within the Geotechnical Branch, Foundation Design Section that develops recommendations for Bridges, Culvert, and Retaining Walls projects.

Graduate Research Assistant for Geotechnical Faculty at George Mason University

Aug 2013 - July 2015

- Conducted Research in use of Unbound Aggregate Base in Road Applications
- Research Was Published in ASCE Journal of Materials

<http://ascelibrary.org/doi/10.1061/%28ASCE%29MT.1943-5533.0001752>

Education and Qualifications

- AWS Certified Cloud Practitioner
- Python Developer Mindset Graduate
- Dataquest.io - Data Engineering Path Graduate
- Kentucky Professional Engineering License # 34152
- Master of Science in Civil and Infrastructure Engineering George Mason University (July 2015)
- Bachelor's Degree in Civil Engineering and Graduate of Honor Program at Western Kentucky University (May 2013)
- American Society of Civil Engineers WKU Steel Bridge Captain (August 2012 to April 2013)

Computer Skills

- Python
- Django
- Git
- Amazon Web Services (EC2, Elastic Beanstalk, S3)
- CSS
- Bootstrap
- HTML
- Docker
- SQL
- PostgreSQL
- JavaScript

Extracurricular

Some of my favorite hobbies are

- Playing music and leaning new instruments. Currently learning the Irish flute and all the lovely tunes and jig that you can play on it
- Creating web applications that organizes and maximizes the use of information
- Listening to fantasy novel audio books. My favorite is the Wheel of Time series.
- Grilling brats and burgers and sitting around a camp fire
- Attending local tech meetups (which hopefully will be better the further we get out of COVID)

References by Request