

Andrew Emery

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EDUCATION

Clemson University

INDUSTRIAL ENGINEERING, B.S.,
COMPUTATION EMPHASIS
Graduation: December 2020

SKILLS

Languages and Skills

Python • C/C++ • Julia
R • Linux/Bash • Git
VBA • Network Design

AWS Competencies

DynamoDB • EC2 • Lambda
CloudWatch • S3

Data Science + ML

SciPy • Keras • NumPy
Tensorflow • Matplotlib

Miscellaneous

Flask • NoSQL
Object-Oriented Design
MVC • RESTful APIs
Multi-threading

LINKS

Github:// [ethinallen](#)
LinkedIn:// [andrewbartletttemery](#)

PROJECTS

EngineeringToCS | A COMPUTER SCIENCE INTRODUCTION FOR INDUSTRIAL ENGINEERS

- Wrote tutorial for peers in IE computing class to teach basics of Python and fundamental programming concepts
- Repository of helpful resources that I used to learn more about the field of computing
- Aimed at equipping engineers with enough base knowledge to integrate with any team and begin learning more specialized practices

When2Lift | A PROGRAM TO PREDICT REC CENTER OCCUPANCY

- Reverse engineered the Fike Recreation Center occupancy API to harvest occupancy data
- Defined schema and pushed all data in a DynamoDB instance
- Implementing Keras sequential model to predict the occupancy of the building using LSTM machine learning

RoadTripper | PLANNING THE PERFECT ROAD TRIP

- Interfaced with the Google Maps API to accumulate list of location objects for major cities around the United States
- Applied linear programming in Python to address the traveling salesman problem in visiting a random assortment of cities as efficiently as possible

Bitcoin Wallet Tracker | TRACKING EARNINGS IN REAL TIME

- Wrote Python script to track value of Bitcoin via Bitcoincharts API GET requests
- Interfaced with Twilio for text alerts at calculated price thresholds
- Configured program with Linux cron to systematically update status

PROFESSIONAL EXPERIENCE

Data Science Intern

CLEMSON ENERGY VISUAL ANALYTICS

May 2019 - Present | Clemson, SC

- Developed python machine learning algorithm to predict utility consumption of buildings on campus
- Integrated my codebase for this project with a custom python package for the CEVAC server
- Created data pipelines to fetch and push information to train the utility prediction algorithm and upload the resulting file from the Linux CLI

Quality Engineering Intern

BOSCH REXROTH

January 2019 - June 2019 | Fountain Inn, SC

- Integrated 3D scanner onto the factory floor to detect low-tech failures on manufactured parts
- The main point of contact with the 3D scanner company tasked with helping to guide the improvement of the technology to better fit Bosch's needs
- Programmatically pulling excel data to identify sources of failure within the plant

INVOLVEMENT

CUhackit

TECH TEAM LEADER

January 2019 - Present | Clemson, SC

- Identify all technical requirements of the CUhackit hackathon and plan solutions to satisfy all needs
- Delegated tasks and handled project management for team of 3 students meet functionality goals before event
- Wrote and managed a repository of code to manage the check-in information for the event

AWARDS AND HONORS

MLH Top 50 Hacker of 2020

February 2020

- I was named one of Major League Hacking's (MLH) Top 50 Hackers in 2020. Out of the 100,000 students who participated in hackathons, my story was one of 50 that was recognized on this list due to my projects and impact on other students in the community.