

alabavery.github.io • github.com/alabavery al.avery.dev@gmail.com • 713 303 0464 • Chicago, IL

## SKILLS AND EDUCATION

Languages — Python, SQL, C++, R

Other Keywords — Flask, HTTP, Git, Linux, Pandas, PyCharm, SQL Server

Sewanee: The University of the South | 2009-2013 — Magna Cum Laude in Economics/Econometrics

(Major GPA: 3.93); varsity football player; student senator; healthcare clinic student leader

## PROFESSIONAL EXPERIENCE: SURGICAL CARE AFFILIATES

Analyst, Strategic Initiatives | 2013 - 2015 • Senior Analyst, Strategic Initiatives | 2015 - 2016

- Led data requirement calls for analyses supporting \$20M+ pitches to insurers like BCBS and Cigna
- Led analyses for said pitches: over project lifetimes of ~3 months, worked independently and delegated work to build analyses in SQL Server to prove SCA could save insurers millions, presented analyses to data and operations teams at insurance companies
- Built model in **SQL Server** for analyzing 10,000+ surgeons' practice patterns using network graphs. Created **JavaScript/HTML** interface used by dozens of Sales Directors for network graphs
- **Used R** to build models for analyzing cost effectiveness of sites of care for patients; models were used to inform C-suite decision-making

## **PROJECTS**

**Python Email Bot** — Built bot that handles incoming email requests for New York state voters' addresses. Packaged as **user-friendly** executable so that non-tech-savvy admin can click once to run the Python code, access and store data locally, and receive and send emails. Will be used by 24,000+ member organization in NY elections this fall and potentially in elections nationwide thereafter

**Chibarcrawler.com** — Developed a site for discovering upcoming music shows. **Collaborated** with front-end dev, teaching him and overseeing the **Git** workflow. Used Python **Flask web framework** to build site and a **message broker** to automate API calls to update data

*OpenCV Music Videos* — Used OpenCV, a **computer vision library** with a **C++** interface, to build program that determines the beats-per-minute suggested by user's movement and employs **Bash** scripting to output a corresponding 'music video'

**Hackathon App** — With hackathon team, made **Django web and SMS app** to recommend doctors to individuals at health fairs. Used **Python** to write and integrate functions querying **third-party API** for doctor info

## Machine Learning Projects —-

- Python implementation of **term frequency-inverse document frequency** analysis (w/o external library)
- Python implementation of a **gradient descent** linear regression (w/o external library)
- Supported data scientists at **ChiHackNight** automating the categorization of millions of news articles

**RECREATION** Improv comedy, music, biking, learning Spanish, loving dogs