Julius Hernandez-Alvarado
aka
J Hernandez

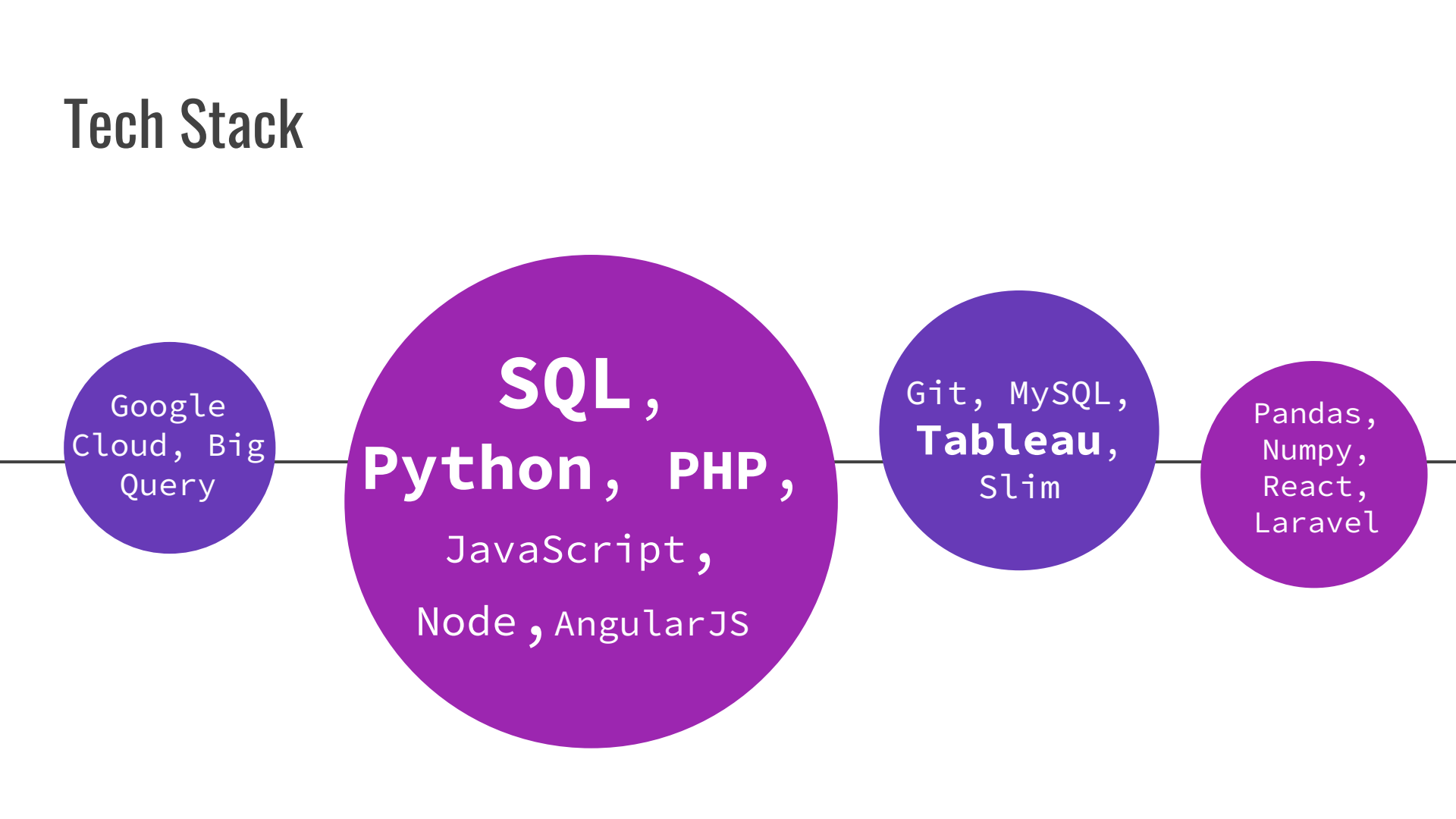## Fullstack Web & Data Engineer

About my experience:

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Most of my work at Redstone Print & Mail was proprietary so I am not able to share code, but I'll describe the major projects I worked on there.

While unemployed from July'2020-Dec'2020 I spent 90% of my time learning. In January 2021 I got a job at Apple.

I also switched from PHP as my primary scripting language to Python. However, I do prefer SQL over PHP & Python.

Tech Stack

Google Cloud, Big Query

SQL, Python, PHP, JavaScript, Node, AngularJS

Git, MySQL, **Tableau**, Slim

Pandas, Numpy, React, Laravel

Professional Projects

Cost Estimation software

May'2018-Jun'2020
Redstone Print & Mail full-time employee

Problem

Our accounting team used an internal cost matrix to estimate the cost of jobs, doing this to 1,500 jobs a month took a team of 4 accountants about 2 weeks.

Solution

I translated the cost matrix to PHP & SQL code and automated job scanning to compute costs.

Outcome

Cost estimating went from 2 weeks to 1.5 seconds

Mailing Software Comparison Scripts

May'2018-Jun'2020
Redstone Print & Mail full-time employee

Problem

There is tons of mailing software. Each gets different results. Each does verification. More verifications means we can send more mail.

Solution

I wrote PHP scripts to compare the XML, PDF, JSON, TXT, and CSV results of each mailing software.

Outcome

A 1.4% increase in mail sent. We sent millions of pieces of mail.

File Downloader bot

May'2018-Jun'2020
Redstone Print & Mail full-time employee

Problem

We had over 2,000 customers. Many had "secure data storage" where we had to go to download their data. Downloading hundreds of files a day took 2-4 hours.

Solution

I built a bot on Node.js using Google Puppeteer.

Outcome

Downloading files went from 2-4 hours to 1-2 mins.

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Inventory to Accounting Transformer data app

May'2018-Jun'2020
Redstone Print & Mail full-time employee

Problem
Our Inventory software exported data in a format QuickBooks did not understand. Without it, the accounting team could not verify purchase orders automatically

Solution
I built a CLI app to do formatting & field calculations so QuickBooks could understand the data.

Outcome
A seamless inventory software data to QuickBooks import.

USPS Zone Chart Matrix statistical computing

May'2018-Jun'2020
Redstone Print & Mail full-time employee

Problem
Each job has thousands of addresses. Knowing the distance of each address to its' destination post office can MASSIVELY reduce costs.

Solution
I used PHP to compute the "average zone distance per piece per job group" statistic & used this stat to render graphics a human could analyze.

Outcome
MASSIVE decrease in shipping costs.

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There were many other projects I did at Redstone, here is a summary:

- *Inventory cost per supplier data scraper bot in Node.js,*
- *Linux to Windows 10 Server API in C#*
- *'Cost per supplier' per 'supplier location' per 'production facility' in SQL,*
- *Permutation of jobs that could be automated using Combinatorics & Excel,*
- *DMV data extractor in PHP,*
- *Customer permit 'info scraper' in xBase,*
- *Microsoft Excel automation in PHP & Basic,*
- *Cost Estimate data visualizations in PHP,*
- *Sales Rep sales & commissions statistical computing in PHP,*
- *'Internal web app' vs 'external inventory software' counts audit in PHP & SQL,*
- *A cloud app to train our Customers to use excel in PHP & AngularJS,*
- *... and many more ! (: This job was so fun, I hate that the coronavirus happened*

Contact

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"1 person can make a difference,
and every person should try" -JFK