**Spencer Sullivan**

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# Summary

Software / Data / Machine Learning Engineer with 7+ years of experience in building business-critical applications that rely heavily on data and modeling. Currently helping ScaleFactor to automate accounting for small businesses.

# Ideal Job

I am looking for opportunities in the San Diego area (or remote) where I can significantly impact the business, work closely with researchers / data scientists to develop, productionize, and scale models, and continually learn and grow as an engineer.

# Key Skills

* **Platforms:** Amazon Web Services (AWS), Google Cloud, On-Premise Cluster
* **Programming Languages:** Ruby (Rails), Python, Go, SQL, HTML, JS (Ember)
* **Databases:** Snowflake, Presto, Athena, Redshift, Postgres, Redis, Dynamo
* **Data Tools & Frameworks:** Airflow, Luigi, Glue, Hive, Spark, Kafka / Kinesis
* **Other:** Docker, Git, Kubernetes, DataDog, Tableau, Lambda, SQS

# Career

**Senior Software Engineer** Remote

*ScaleFactor* 2019 – Present

Automating small-business accounting with full-stack web development and ML pipelining.

**Senior Software Engineer** Austin, TX

*Spiceworks* 2017 – 2019

Architected and developed Petabyte-scale data pipelines feeding ML models.

**Software Engineer** Austin, TX

*Spiceworks* 2014 – 2017

Architected and developed Petabyte-scale data pipelines feeding ML models.

**Software Development Intern** Austin, TX

*Spiceworks* 2010 – 2014

Architected and developed Petabyte-scale data pipelines feeding ML models.

# Education

**University of Texas at Austin** Austin, TX

*Bachelors of Science in Computer Science* 2011 - 2014

# Experience

**ML for Bookkeeping** *An ML workflow for automatically classifying bank transactions*

* Reduced need for humans to classify transactions manually
* Refined frontend, backend, and modeling code for production use
* Analyzed model performance

**Accounting Report Card** *Self-service health dashboard for business accounting books*

* Integrated with 3rd parties to collect and parse accounting reports
* Ran analysis to determine healthy accounting patterns
* Created portal for calculating and viewing insights

**Real Time Bidder** *Set of services for intelligently bidding on ad inventory*

* Wrote services that respond in under 10ms (including network latency)
* Horizontally scaled web server up to 1 billion requests per day
* Designed micro-service architecture comprising 10+ services
* Productionized machine learning model to compute bids
* Helped scale product from $0 to ~$10M in annual revenue
* Rigorously tested and wrote monitoring

**Business Identity Graph** *Database of companies who visited Spiceworks*

* Generated graph from millions of data points from several sources
* Designed data model where graph was iteratively updated in-place
* Resolved business attributes from a connected component of the graph

**Account Intelligence Dashboard** *showing businesses and their interests*

* Wrote data pipeline to calculate purchase intent of businesses
* Integrated Tensorflow model from data science team into pipeline
* Architected pipeline to leverage business identity graph

**Pixel Tracking** *Web-tracking service integrated with 100's of companies*

* Led rewrite of service
* Integrated open-source browser fingerprinting

**Segmentation Service** *Puts people into segments based on their actions*

* Wrote jobs to send billions of events into system every month
* Integrated with 3rd parties using cookie matching
* Debugged / resolved problems around user-identity mappings
* Collaborated with Data Science to incorporate intent modeling