Spencer Elkington

Website | GitHub | Email | LinkedIn

Salt Lake City, UT

Education

University of Utah *Aug 2022*
Bachelors of Science | *Quantitative Analysis of Markets & Organizations* *Salt Lake City, UT*
Emphasis | *Business Economics, Matchmaking, Non-Market Environments*
Minor | *Computer Science*

Expertise: Application Eng. | Agentic Systems | Economics | Data Eng. | CI/CD
Software: Github Actions | NX | ASP.NET | Apache Spark | AWS (ECS/EC2, RDS)
Languages: C# | TypeScript | Python

Experience

Developer Experience & Backend Software Engineer | *Constituent Voice* *March 2024 - Present*
Creating software & applications to connect voters to their representatives *Remote*

- Rollout LLM agent tooling in developer and deployment workflows for fully autonomous ticket resolution
- Develop testing & CI/CD frameworks to minimize regression risk in **ASP.NET** and **React Native** apps
- Orchestrate codebase consolidation via **NX** to de-silo dev teams and inroduce end-to-end testing

Backend Software Engineer | *Constituent Voice* *Jan 2023 - March 2024*

- Create **Terraform/AWS** deployment systems, reducing new AWS application spin-up times by >90%
- Port legacy microservices to **ASP.NET/EFCore** to boost capacity of Congressional scheduling services
- Lead & manage creation of unified **GitHub Projects** scheduling system to de-silo development work

Software Engineer, DataOps | *M Science* *June 2022 - Feb 2023*

- Lead implementation of **Spark/AWS** optimizations, resulting in >$1M annual compute cost reductions
- Constructed optimized and durable ETL processes for cornerstone TMT/games reporting
- Planned & constructed unified DataOps & statistics libraries to streamline financial research operations

Projects

Flowthru: Type-Safe ETL Framework for .NET | *CGC* *June 2022*

- Architected a data engineering framework for compile-time, type-safe ETL pipelines in **C#/.NET**
- Exercised API surface-first design philosophy for intuitive developer onboarding & reliable agentic usage
- Designed **NUnit** extended testing capability for code coverage from end-to-end, real-world pipeline cases

MagicAtlas: Analytics, APIs, and Query Languages for MTG | *CGC* *June 2022*

- Designed an analytics suite for rules and card analysis of Magic: The Gathering rules and game data
- Created a custom **NUnit** ratcheted testing framework for scalable test case creation

Using Spark Structured Streaming to Scale Your Analytics | *Databricks* *June 2022*

- Guest-authored engineering blog post about **Spark** Streaming-based ETL process cost optimizations
- Design introductory tutorials and reference for both business- and developer-focused audiences

PointyPal: A Better Campus During Quarantine | *Triangle Engineering* *Aug 2020 - Dec 2021*

- Built a class management wrapper for Discord to assist students with online learning during COVID-19
- Created and moderated a 600-student online campus, opening source for deployment across 4 universities
- Conducted A/B testing to polish user experiences, resulting in peak growth rates of 100 users/mo