

Riley Thompson

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github.com/rileythomp

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Languages

Go · SQL · TypeScript · Python · Java · C# · Ruby

Tools

Postgres · MongoDB · Kafka · RabbitMQ · Kubernetes · Docker · AWS

Education

University of Waterloo

2017 - 2022

Honours Bachelor of Computer Science with Business Specialization, Co-op

Work Experience

Flybits · Software Engineer II

Sept 2022 - Present, Sept - Dec 2021, Jan - May 2021

- Lead the design and implementation of an analytics service that displays engagement metrics and allows for the creation of custom analytics queries and charts. Used **HyperLogLog** to improve query times by over **98%**.
- Lead the design and development of an approval process system to allow for team-based reviews of marketing campaigns. Worked with various stakeholders to gather requirements and coordinate teams.
- Implemented an audit microservice to record user-generated events and an API to query these events. Used an observer design pattern to publish and receive messages from **RabbitMQ** for storage in a **Postgres** DB.
- Developed an orchestrator microservice for creating and managing the state of customer marketing campaigns with **Go** and **MongoDB**. Made extensive use of **gRPC** for inter-service communication.
- Lead an initiative to lint over 50 microservices by creating an open-source automated linting tool in **Python**.
- Awarded the "**Fly with Impact**" award as voted by the company for "delivering true results-oriented impact".

Uptake · Software Engineer Co-op

May - August 2020

- Enhanced data reports and visualizations by improving **SQL Server** queries and implementing complex business logic in **C#** and **JavaScript**.
- Assisted in the transition of existing **.NET** applications to **Angular** and **TypeScript**, developing front-end components and back-end services.

Lending Loop · Software Engineer Co-op

January - May 2019

- Integrated the **CloudMailin API** service with HTTP Basic authentication to receive webhook alerts. Enhanced features such as auto-lending with **Ruby on Rails** and **PostgreSQL** following an MVC architecture.

Projects

GopherCon '24 Speaker

rileythomp.com/write-ups/four-loop-go · github.com/rileythomp/go

- I was selected to speak at GopherCon `24 in Chicago out of more than 230 submissions. My talk was on exploring the Go compiler's internals and its tooling by adding new keywords.

Jeopardy

playjeopardy.netlify.app · github.com/rileythomp/jeopardy

- Created playjeopardy.netlify.app, a real-time multi-player Jeopardy game with over 100K questions. It is fully-featured with **OAuth2** support, leaderboards, game configuration, in-game chat, and much more.
- Built the backend with **Go**, and used **Supabase** for **Postgres** storage. Made extensive use of websockets, goroutines, channels, and context cancellations to synchronize the game amongst players. Built the frontend with **Angular**, making extensive use of **Observables** and **Subjects** to synchronize the game state for players.

r/NBA Mentions

nbamentions.com · github.com/rileythomp/nbamentions

- Created nbamentions.com, a site that displays players & teams trending on the r/NBA subreddit. Posted it on r/NBA where the [reddit post](#) received over **100K views** and **100 comments**, driving over **5,000 site visitors**.
- Used the **Reddit API** to scrape r/NBA comments and store them in a **Postgres** database. Built the backend with **Flask** and **Python**. Implemented a cache to decrease query times **98%** from **5s to 0.1s**. Built the frontend with **Angular** and **TypeScript**. Implemented dynamic bar charts, player/team search and infinite scrolling.