Ryan How

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EDUCATION

University of Waterloo
BASc in Management Engineering, Computing Option; GPA: 4.00
Waterloo, ON
Sept. 2017 – Apr. 2022
Relevant Courses: Systems Programming, Databases, Data Mining, Data Structures & Algorithms, OOP

EXPERIENCE

Ecobee
Backend Developer Intern
Toronto, ON
Sept. 2021 – Dec. 2021

- Incoming Backend Developer Intern working on the One Platform team

Ecobee
Backend Developer Intern
Toronto, ON
Jan. 2021 – Apr. 2021

- Developed an Apache Beam ETL pipeline (8M+ msgs/day) that processes device configs from PubSub and publishes to Google Cloud Spanner
- Developed gRPC endpoints for a device agnostic API to retrieve device configs from Cloud Spanner
- Increased observability of 50+ restlet filters by tracking process latency and data model modifications leveraging Prometheus and Grafana
- Created Cucumber system tests to verify SLO latencies and publish results to StackDriver

Minimax Labs
Software Engineering Intern
London, UK
May 2020 – Aug. 2020

- Refactored 7 client-side applications into a single configurable application reducing build time by 90%
- Architected and developed a new admin datahub enabling extensive data manipulation and visualization
- Implemented client-side caching and code splitting to improve web page load speeds by 25%

Emailgistics
Software Engineering Intern
Mississauaga, ON
Sept. 2019 – Dec. 2019

- Developed a Microsoft Outlook add-in enabling authenticated users to set their availability, comment on conversation threads and archive messages
- Introduced CSRF protection middleware to all services to reduce web security vulnerabilities
- Created scripts to ensure database index consistency with a defined index collection to improve query retrieval speed

Boss Insights
Software Engineering Intern
Toronto, ON
Jan. 2019 – Apr. 2019

- Designed and developed config files used to add 3rd party integrations to a data aggregation system
- Automated the creation of rate limiting configurations files used with Cuttle HTTP forward proxy

PROJECTS

Search Engine (Repo): An interactive text-based search engine for the '89/'90 LATimes document collection consisting of an indexer, metadata engine, ranking algorithm and snippet engine
Capacitated Facility Location Problem (Repo): Determines the optimal placement of facilities in order to minimize facility and transportation costs while satisfying demands and constraints

SKILLS

Languages: Java, C, Go, Javascript, SQL, HTML/CSS

Technologies: Node, Spring, React, Angular, Vue, Docker, Apache Beam, Prometheus, Grafana

Data: MongoDB, PostgreSQL, MySQL