Ryan Ho

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WORK EXPERIENCE

Software Engineer, Revacomm, Honolulu, HI   April 2024 - Present

- Engineer in the Pipeline Team Center for Medicare & Medicaid Services developing pipeline focused software applications using Go, Gitlab, Github Actions, Docker, Kubernetes, automating vulnerabilities scans.

Software Engineering Intern, Revacomm, Honolulu, HI   April 2023 - March 2024

- Plan, develop and deploy a static server-less web application to query and visualize statistics on client emails for Central Pacific Bank via AWS Cloud Services and ReactJS.
  - Develop server-less RESTful API functionality to query S3 using AWS Athena, via Get/Post requests and event driven Lambda Functions, extract metadata using REGEXP.
  - Reduce client costs by 80% for storing emails by extracting metadata and downloading to cold storage in S3.
- cpb.bank: develop the HTTP Pipeline dynamically rendered in ASP .NET Architecture.
  - Develop the Content Security Policy to prevent Cross Site Scripting, whitelisting specific 3rd party resources.
- www.boardofwatersupply.com: develop a static server-less microsite for the Procurement Portal and security.
  - Develop server-less RESTful API, via AWS Lambda, API Gateway and Cognito, for login and subscription functionality employing cookies, local/session storage and JQuery to update the DOM on successful response.
  - Plan, develop and implement the use of Typesense, a search engine using GraphQL to query PostgresDB.
    - Reduce yearly costs from $2400 to $0 dollars for 3rd party search engines.
  - Develop and deploy AWS WAF and Shield to prevent XSS across all subdomains securing development and staging environments to client and internal IP addresses.
- https://pscportal.boardofwatersupply.com/: develop unsubmit, edit user and zip pdf functionality in microservice architecture, via Typescript.
  - Develop RESTful API via ExpressJS to retrieve/mutate data passing it via NATS messaging system.
  - Reduce hours spent by 15% to automate zipping pdfs to S3 via cron jobs scheduled by deadlines and category.

Software Engineering Intern, Traffic Technology Services, Beaverton, OR   April 2022 - May 2023

- Partner with Toyota Motor Engineering on a pilot project to optimize intersections in Colorado.
  - Use C#, .NET programing, to stream signal data from databases in Sqlite into a simulation program, Vissim.
  - Filter database data; compressing them to 80-90% of its rows to efficiently streamline data into Vissim.
  - Use agile lifecycle; ER diagrams, prototypes, biweekly meetings with stakeholders and CTO.
- Partner with Department of Energy(ARPA-E) analyzing intersections in Portland Washington County and Detroit.
  - Parse and analyze JSON data streamed live, utilizing the python multiprocessing library.

SKILLS

Languages: C, C++, C#, SQL, Python, Java, Javascript, Typescript, HTMl, CSS, Bash Scripting, Go

Data Science Libraries: Pandas, Numpy, Multiprocessing

Cloud Infrastructure and SDKs: Boto3, AWS Lambda, Amazon S3, Amazon API Gateway, Amazon Athena, AWS CloudFront, AWS Secrets, AWS WAF and Shield

Containerization: Docker, Kubernetes, Skaffold

Web Development Frontend: NodeJS, Bootstrap, MongoDB, ReactJS, JAMstack, JQuery, Axios, Gatsby, Umbraco, CraftCMS

Web Development Backend: ExpressJS, Mongoose ODM, GraphQL

Version Control: Git, Gitlab

Package Management: NPM

Project Management: Jira, Confluence, Microsoft Teams, Google Meets, Slack

EDUCATION

Oregon State University   Corvallis, OR

Applied Computer Science, focus in Data Science   Magna Cum Laude

                                                                                            GPA: 3.72

COMPUTER SCIENCE PROJECTS

Sandbox   2024-Current

- https://rhoyo.github.io: my development sandbox and personal page written in Typescript, with React components, produced statically by GatsbyTS framework and hosted on Github Pages.

  - My personal website is under construction to host personal information about myself, to experiment with Material UI and to test and investigate the potential of static sites with modern software development tools.

Web-based Intersection Traffic Intelligence Report (OSU Capstone Project)   2021-2022

- Develop dashboards with visualizations, analyzing traffic queue data sponsored by Traffic Technology Services.

  - Use Docker to containerize app, Numpy, Dash, Plotly Express, Bootstrap, to visualize and interpret data.