

Raul de Hevia *Software Engineer*

📧 rauldehevia.com 🌐 <https://github.com/RdeHevia> ✉ raul.dehevia@gmail.com 📍 San Francisco, CA

PROFESSIONAL EXPERIENCE

Software Engineer

02/2022 – present | San Francisco, CA

Intuitive Surgical, Iris Team 🌐

- Improved the user experience of the core application by redesigning all the workflows of a TypeScript data-broker service that retrieves and processes DICOM files. Retrieval time was reduced by 80% (from minutes to seconds).
- Centralized the management of all the migrations and DDL operations of services with an ephemeral containerized HTTP-server application written in TypeScript.
- Streamline the creation of m2m SSH connections between VM applications and a central service by building an event-driven pipeline that delivers the keys to the central service using AWS S3, SQS, CloudFormation and Go SDK.
- Architected and built the Observability solution for a core service using the Elastic Stack (ElasticSearch, Kibana, Fleet, Elastic Agent), Docker, AWS EC2, SNS, Go and Bash.
- Automated the configuration and enrollment of the monitoring agents of the Observability solution by creating a middleman HTTP service written in Go.

Co-Creator, Software Engineer

2021 – 02/2022 | San Francisco, CA

Monsoon (monsoon-load-testing.github.io) 🌐

Monsoon is an open-source, serverless framework for running browser-based load tests in the cloud.

- Architected and constructed an auto-scaling, fully serverless load-generation engine using AWS ECS, Fargate, EventBridge and Lambda to spin up and control up to 20,000 Google Chrome instances, one per virtual user.
- Led the design and implementation of an auto-scaling ETL pipeline using AWS Lambda, S3, EventBridge and Timestream that can process dozens of Gigabytes of raw test results per hour.
- Wrote npm library so users can script their tests, using Typescript, Puppeteer and the Performance Web API.
- Developed a visualization dashboard using React and VictoryChart. Results can be visualized in near-real time.

Full-stack Developer

2020 – 2021 | San Francisco, CA

Self-Employed

- Worked in multiple full-stack projects using Node.js, Express, React, Redux, PostgreSQL and MongoDB

Structural Engineer

2014 – 2020

Arup

San Francisco (CA), UK, Spain

- Worked in a wide array of international projects, regularly interfacing with other teams, clients and public agencies.

TECHNOLOGIES

Languages (*Typescript, JavaScript, Go, Bash, SQL, HTML, CSS*)

Cloud & Dev Tools (*AWS, Docker, Git, GitHub, CircleCI, Jenkins, Puppeteer, Jest, Postman, Nginx*)

Misc. Technologies & Skills (*Node.js, Express, Knex.js, PostgreSQL, MongoDB, Redis, Elastic - ELK Stack, HTTP, WebSocket, SSH, TLS, DICOM, Orthanc, Distributed Systems, ETL pipelines, React, Redux, Vue, TailwindCSS*)

EDUCATION

AWS Solutions Architect

2023

Associate 🌐

Software Engineering & Full-stack Web Development

2020 – 2021

Launch School 🌐

BS and MS in Civil Engineering

2008 – 2015 | Spain

Technical University Of Madrid

Exchange student in Delft University of Technology, Netherlands (2012)