

Tristan Macelli

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SKILLS

- Full Stack Engineering, API implementation, Microservice design, Test-driven development (TDD), Git
- React.js, Vue.js, Redux, RxJS, Vite, TailwindCSS, GraphQL, Typescript
- Node.js, Express.js, Golang, Gorilla, Elixir, Phoenix, Flutter, WebSockets, RabbitMQ, MongoDB, PostGRES, SQL
- Terraform, AWS Lambda, AWS EC2, AWS Codebuild, Docker

EXPERIENCE

ICON, Austin, TX (3D Printing Construction) – Software Engineer

January 2022 – December 2022

- Developed a Typescript-based Events API that served as a proxy for the printer PLC/State machine and our operator app. Leveraged machine state data to gain insights into shift productivity and drive performance improvements.
- Proactively resolved print suite issues in the field, collaborating closely with printer operators to streamline workflows. Conducted training sessions, empowering operators with new features & ensuring seamless operations.

Alerts API - Hyper-localized weather alerting service (Icon Project)

- Engineered a high-impact service that leveraged Tomorrow.io to provide hyper-localized weather forecasts.
- Designed and implemented an algorithm that combined forecasts into actionable weather alerts, disseminated to printers via a proxy service.

Print Analysis Tools - At-a-glance tools to monitor print/working shift conditions (Icon Project)

- Developed a graphical view ensuring adherence to machine alignment SOPs, minimizing machine downtime & eliminating unnecessary slowdowns.
- Implemented a tabular view to detect any deviations in administrative settings (potentially causing quality issues).

Print Events - Machine State Capture (Icon Project)

- Surfaced state values from the two printer subsystems to our main database and administrative website.
- Leveraged a centralized database and administrative website to provide real-time visibility into printer productivity, print crews, and worksites through an intuitive timeline of state values.

Saama, Campbell, CA (Clinical Analytics) – Data Engineer

July 2020 – January 2022

- Developed Python scripts to automate data discrepancy reporting by pulling clinical data from an internal API, reshaping the data for analysis, and finally creating an actionable task (a Jira card) upon discovery of discrepancies.
- Helped to diagnose issues with the product and interfaced with clients, increasing workflow efficiency on the Life Sciences Analytics Cloud (LSAC) platform.

PROJECTS

Slack Clone - Full-Stack Messaging Web App (Side Project)

- Created an exceptional user experience by designing a responsive web application with seamless transition animations on mobile devices.
- Developed a robust API Gateway in Go for user authentication, session management, and efficient load balancing of microservices. Containerized microservices using Docker and deployed them to an EC2 instance.

Postcomet - Serverless SMS to YouTube Integration (UW Capstone)

- Led the development of a groundbreaking serverless integration between SMS and YouTube. Leveraged Terraform to provision AWS Lambdas, enabling seamless processing of requests from a dedicated Twilio phone number.
- Designed & implemented an automated build process with Codebuild to facilitate smooth integration and deployment of AWS Lambda Functions.

EDUCATION

University of Washington, Seattle, WA BS in Informatics, Deans List

GPA 3.49 Major GPA 3.74