JULIAN FORTUNE

Contact · GitHub · LinkedIn

Senior software developer with 4 years of professional experience, expertise in leveraging functional techniques and type systems to prevent bugs, and a proven track record of success in environments ranging from startups to massive enterprises.

SKILLS

- **Languages:** Python, Typescript, Scala (with `cats`), Kotlin, Swift, & Java.
- **Cloud:** Object storage, Postgres, MongoDB, instances, & message queues.
- **Tools:** Docker, Terraform, & K8s.

EXPERIENCE

Elemint · Software Engineer — August 2023–Present

Working across the stack on customer loyalty applications that compliment live events.

- Developed an architecture for implementing auctions.
- **Stack**: React and Typescript frontend, Typescript backend.

Disney Streaming · Software Engineer — June 2022–August 2023

Worked on a set of internal tools for AWS Kinesis—e.g., schema registry, code generation, SDK's—that empower other teams to send and receive messages/events.

- Implemented code generation that outputs a custom Python library—with classes and types corresponding to the schema definitions—for any given schema registry.
- Optimized AWS usage, resulting in annual savings over $1M.
- Added features to SDK's, 'higher-level' services (e.g., snapshotter), and SBT plugins.
- Created dashboards that enable faster resolutions to production incidents.
- Wrote documentation and created a support Slackbot.

Agot AI

Team Lead — Jan 2022 – June 2022

Led the team responsible for processing videos and creating the labels used for training.

- Planned sprints, conducted interviews, and tracked the team's progress.
- Doubled the rate of training data produced through process improvements.
- Advocated for strong typing, pure functions, and immutability.

Software Engineer — June 2021 – Jan 2022

Reverse-engineered a restaurant display system comprising an android app and microservices communicating via RabbitMQ, and then wrote several microservices in order to integrate a computer vision feedback system.

- Wrote Python libraries for standardizing consuming and producing RabbitMQ events, and for identifying the closest match for an order from a set of candidates.
- Started a Python lecture series to promote best practices.

Skyworks Solutions · Software Engineer Jan 2021 – June 2021

Performed machine learning experiments, administered cloud resources (e.g., MongoDB and TPU instances), and wrote tests for the audio deep learning team.

- Created a Python library for defining weighted finite-state transducers and applying operations (e.g., composition).

Lucid Software · Intern June 2020 – Sep 2020

Developed new front-end components, redesigned the paywall system to support a suite of products, and refactored endpoints and models to support front-end changes.

- Worked on a hand-drawn shape detection project that won 1st place in the hackathon.
- **Stack**: Angular and Typescript frontend, Scala backend.

CBT Nuggets · Software Engineer June 2018 – June 2019

Worked part-time (during college) on the mobile apps team.

- Fixed crashes, debugged memory leaks, implemented features, and wrote tests for iOS, tvOS, and Windows apps.

EDUCATION

Oregon State University · 2017–2021

B.S., Computer Science (4.0 GPA)

Relevant courses: Programming Language Fundamentals (Haskell) & Deep Learning

PROJECTS

Functional-C — Statically-typed, interpreted language written in Haskell.

PaperECG — An application that digitizes electrocardiograms (ECGs) built with PyQt.

PUBLICATIONS

Real-Time Speech Workload Estimation for Intelligent Human-Machine Systems
Human Factors and Ergonomics Society Annual Meeting, 2020. Co-authored with Dr. Jamison Heard and Dr. Julie A. Adams.

Digitizing ECG image: A new method and open-source software code
Computer Methods and Programs in Biomedicine, June 2022. Co-authored with Larisa G. Tereshchenko and others.