

Christopher Carlile

Full-Stack / Functional Programming / Software Engineer

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Professional Experience

Team Scala Engineer - Caesars Digital

August 2021 - Present

- Sought input from a variety of stakeholders to establish direction for newly established vertical. Scoped and integrated feedback for architectural proposals to enable multiple stark UX improvements for brand-critical loyalty program with 1+M monthly active users. Modified existing code in multiple projects, wrote new APIs, coordinated data migrations, and created tickets for frontend work.
- Established from the ground-up new services-oriented modular monolith Scala project leveraging pure Functional Programming with effect systems, including metering, circuit breaking, and kubernetes deployment code across several environments and multiple jurisdictions in a highly regulated industry.
- Consistently shared knowledge in cross-vertical engineering group on topics like generating lazy streams, finding memory leaks in JVM applications, and leveraging Kleisli arrows to inject distributed tracing context. Published guidelines for asynchronous communication in Slack that became part of onboarding materials for entire division.

Awards Received

Caesars Founders Award - 2023

Engineer - Aria Systems

March 2021 - August 2021

- Contributed to and provided guidance for backend rearchitecture effort in areas of microservice design and functional architecture.
- Quickly adapted to legacy design patterns, technologies, and languages to provide contributions in brownfield code.
- Promoted knowledge dissemination by spinning up reading groups and a developer wiki.
- Filled leadership void in new team by coordinating architecture, style, and process discussions around modern approaches to software engineering.

Senior Data Services Engineer - Banno | Jack Henry & Associates

April 2016 - February 2020

- Contributed to, then assumed design of, a mission-critical ACH transfers feature in a legacy Akka codebase.
- Ensured that client data & money are secure in transit and at rest.
- Helped migrate toward a services-oriented architecture and a pure-FP paradigm using the Typelevel stack.
- Attended and presented in regular meetings for all-hands, product, and team. Participated in peer-learning book clubs.
- Engaged with client-facing teams to diagnose, document, and fix issues. Started and continued to maintain a team wiki.

Founder - Benntoo

2016 - 2019

- Conceived, planned, and executed a business model that empowers nonprofits to fund raise and donors to give.
- Architected a full-stack isomorphic Scala application, including design & implementation of data model, API, and UI.
- Balanced ideal solutions with startup constraints. Utilized best practices and pursued security, scalability, and maintainability by design.

Research Assistant - Institute for Intelligent Systems

June 2014 - September 2015

- Worked with Windows Azure Pack and C# to help prototype backend for experimental Web App.
- Used web scraping technologies and Python scripting to gather and format text data for large n Natural Language Processing research.
- Attended, participated in, and presented to public weekly research meetings.

Technologies

Favorites

Scala, Python, Javascript, Typescript, Linux, Emacs, Vim, Functional Programming, SQL (Postgres), Git, HTML5, CSS3, Docker, Nix/NixOS, Elm, Kubernetes, Kafka, Typelevel stack (cats, cats-effect, http4s, fs2, fs2-kafka, circe), helm/helmfile, AWS (RDS, EC2, ECR, MSK, EKS, S3), Rust

Familiar with

Node.js, AngularJS, Express.js, MongoDB, Vue.js, Google Search, shell scripting, JQuery, curly brace languages, Lisps, ML-style syntax, Purescript, Haskell, Spring Java

Education

BS Mathematics Honors - University of Tennessee

Cum Laude - 2008-2012