Sreedev Kodichath

Senior Software Engineer

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Brussels, Belgium

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DRIVING INNOVATION THROUGH EFFICIENT ENGINEERING

INTRODUCTION

As a senior software engineer with over 8 years of experience, I architect & engineer resilient software for the web and hardware leveraging modern technologies and formal methods to build distributed data pipelines and large scale web applications drawing on my experience in the music distribution and insurance industries. My craft centers on designing fault-tolerant systems with reproducibility and scalability while advocating for privacy-first architectures through encryption and data ownership.

PROGRAMMING LANGUAGES

- *RUBY*
- *ELIXIR*
- *RUST*
- *TYPESCRIPT*
- *C/C++*
- *ZIG*
- *GLEAM*

TOOLS

DATABASES
PostgreSQL
MariaDB
Redis
DuckDB
ClickHouse
PebbleDB

WEB
Ruby+Rails
Elixir+Phoenix
Next
Svelte
React
Solid

DEVOPS
Docker
Kubernetes
Tailscale
NixOS
OpenZFS

DATAPROC
Ruby+Sidekiq
Elixir+Broadway
Kafka
Arrow
Spark
DuckLake

OTHER
WireShark
Nmap
Systemd
Linux
FreeBSD

CAREER

ODOO S.A. *Brussels, BE*
May, 2026 - Present

Senior Software Engineer (R&D)

Tech Stack:
Python, PostgreSQL, Javascript, Typescript, Docker, Odoo Framework, OwlJS

TUNECORE INC. *New York, US*
Oct, 2023 - Apr, 2026

Senior Software Engineer

* Architected high throughput distributed data pipelines for processing music streaming and publishing revenue data for millions of artists.
* Developed a comprehensive tax withholding and reporting system for music distribution revenue.
* Made use of formal methods to architect and engineer consistent algorithms for streaming fraud penalty escalation.

Tech Stack:
Ruby/Rails, Elixir/Phoenix/Broadway, Redis, PostgreSQL, MariaDB, Javascript, Python, Docker, AWS

TARKALABS *New York, US*
Jan, 2020 - Oct, 2023

Senior Software Engineer

* Worked with a leading music distribution company, collaborating with the team to develop a comprehensive tax deduction and revenue reporting system for music distribution and publishing revenue.
* Published articles covering various topics such as digital signal processing, functional programming and low-level programming.

Tech Stack:
Ruby/Rails, Elixir/Phoenix/Broadway, Redis, PostgreSQL, MariaDB, Javascript, Python, Docker, AWS

RISKCOVRY *Bengaluru, IN*
Feb, 2019 - Jan, 2020

Software Engineer

* Worked with a team of engineers to develop software for insurance sales reporting and payment collection.
* Designed and implemented business administration tools for analyzing sales data, tracking customer feedback, and monitoring cash flow.

Tech Stack:
Ruby/Rails, PostgreSQL, Javascript, Python

HOUSINGMAN *Bengaluru, IN*
Feb, 2018 - Feb, 2019

Software Engineer

* Designed and developed a customized CRM application for the real estate sales industry, focusing on the lead lifecycle.
* Implemented algorithms to categorize lead quality based on various factors such as source, pipeline status, and sales representative feedback.

Tech Stack:
Ruby/Rails, PostgreSQL, Javascript, PHP, AWS

OPEN SOURCE CONTRIBUTIONS

DEDUPLICATOR ↗

A CLI+TUI tool to find, filter and delete duplicate files fast & interactively. It relies on multi-threading, a dangerously fast hashing algorithm (gxhash) and multi-stage processing of files to achieve extreme speeds. The work to support very large file systems with reduced runtime heap allocations and reduced application state lock contention using scalable bloom filters is underway.

BLAZE SSH ↗

Every engineer has a script to discover AWS EC2/ECS instances. This project provides a polished solution to replace those scripts. It provides a terminal user interface to discover AWS EC2/ECS instances, SSH into them, inspect them and extend existing scripts. It comes with a configuration file that lets users set ssh flags and control the ui settings. It uses local cache to improve perceived performance.

POCKETBASE SDK ↗

PocketBase is an "open source backend" that lets users setup RESTful CRUD backends easily. This project provides a very intuitive and clean DSL to interact with models and APIs provided by PocketBase for Rust Projects. It relies on some Rust hacks to provide a Rails ActiveRecord like DSL to reduce friction in adopting PocketBase for Rust projects.

CSV INGESTION PIPELINE ↗

This is an example ETL Pipeline built as a proof-of-concept using Elixir's Broadway - A concurrent, multi-stage data processing pipeline builder. It introduces multiple producers, transformers and consumers for different data sources and sinks. The project also serves as a reference for Broadway configuration that minimizes idle-time for the different layers of the pipeline.

U8G2 K210 HAL ↗

The Kendryte K210 is a powerful SoC powered by a dual core RISC V processor built specifically for edge AI and machine vision applications. This project provides a hardware abstraction layer for the u8g2 monochrome display driver library for the Kendryte SDK, which is used to program these devices. This makes adding OLED and LCD displays to K210 AI/IoT projects easier.

OPDS TUI ↗

A very minimal and fast TUI program built to browse books hosted using Kavita, an open-source self-hostable eBook library. It uses the OPDS (open publication distribution system) interface provided by Kavita to browse through media collections and open them using the zathura PDF reader. The project does not duplicate media from the server onto the local filesystem, instead the media is kept in-memory.

EDUCATION

Bachelor of Commerce 2018

Bharathiar University, Tamilnadu, IN.

Extensively studied financial modeling, investment analysis, and financial reporting systems which prepared me to build large-scale financial forecasting, reporting, and data processing software as a software engineer.

MEMBERSHIPS

Bangalore Amateur Radio Club (www.barc.in) *Bangalore, IN.*

LM-269

WRITING & MEDIA

- *Building a Long Term Data Storage Solution*
- *An Introductory Guide to Functional Programming Concepts*
- *Digital Audio 101: Playing Audio From a Microcontroller*
- *Real World Use of Bitwise Operators*
- *All You Need to Know About Comments in Ruby*

CERTIFICATIONS & LICENSES

Electronic Keyboard *Grade I*
Trinity College of London

Amateur Radio License *Technician Class (KD2ZWB)*
Federal Communications Commission (US)

Amateur Radio License *General Class (VU2JWE)*
Ministry of Communications & IT (IN)

LANGUAGES

English	*****
Kannada	*****
Tamil	*****
Hindi	*****
Malayalam	*****
Arabic	*****

INTERPERSONAL SKILLS

* Emotional Intelligence
* Excellent Leadership Abilities
* Team Building Skills
* Responsibility & Accountability
* Time Management
* Stellar Communication Skills
* Problem Solving Skills
* Customer Focus
* Adaptability

ABOUT THIS RESUMÉ

This interactive resumé was built with NextJS 15. A portable version of this resumé is available for download as a PDF here. The source code for the resumé is available on request.

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