

Ashin Laurel

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Summary

Software Engineer II with 2+ years experience building large-scale, fault-tolerant data pipelines for global mapping and navigation systems. Strong background in backend and distributed systems using Scala, Java, and Golang, with hands-on experience in retries, resumability, and failure handling. Published researcher at the intersection of AI, healthcare, and formal methods. Full-stack developer with hands-on experience in React and Go, delivering end-to-end solutions for clients. Comfortable owning systems end-to-end, from design and implementation to testing and production support.

Technical Skills

Languages: Scala, Java, Go, Python, C++, JavaScript

Backend & Systems: Distributed Systems, Data Pipelines, Fault Tolerance, Resumability, Retry Mechanisms

Frameworks & Tools: Kafka, React, Next.js, Node.js, Angular

Databases: MongoDB, PostGreSql

Experience

HERE Technologies

Mumbai, India

Software Engineer II

Jul 2023 – Present

- Played a key role in designing and building a delta management service for large-scale map tile pipelines, enabling detection and skipping of unchanged tiles and significantly reducing redundant processing.
- Extended the delta management system with additional capabilities around data processing and compression, contributing to a **50% reduction in regional map processing time**.
- Led and implemented schema upgrades across multiple tile layers, eliminating redundancies and reducing tile sizes, resulting in **25% lower CPU and memory usage on EMR**.
- Built and maintained fault-tolerant backend services with resumability and retry mechanisms, ensuring data consistency across complex ingestion and delivery workflows.
- Recognized with the **Kudos Award for three consecutive quarters** for high-impact contributions and technical leadership.
- **Technologies:** Scala, Java, Kafka, Python

Lyearn

Bengaluru, India

Backend Developer Intern

Jan 2023 – Jun 2023

- Contributed to backend service development, focusing on API design and data handling.
- Worked closely with frontend and product teams to deliver features end-to-end.

Cohesity

Bengaluru, India

Software Engineer Intern

Jul 2022 – Dec 2022

- Implemented features to retrieve flat documents during decompression in storage systems.
- Worked across Golang and C++ codebases on performance-sensitive, system-level components.
- Built an Angular-based mailbox-style UI to browse and inspect retrieved documents.
- Collaborated with senior engineers to extend storage and decompression pipelines.
- **Tech:** Golang, C++, Angular

TurnBox

Goa, India

Founder

Apr 2020 – Aug 2022

- Founded a student-led community building web applications for commercial clients.
- Owned projects end-to-end, from requirements gathering and UI design to backend APIs and deployment.
- **Tech:** React, Next.js, Node.js, MongoDB, Golang

Education

Birla Institute of Technology and Science, Pilani

2018 – 2023

Dual Degree Programme

Bachelor of Engineering in Computer Science

CGPA: 8.6/10

Master of Science in Economics

Publications

- *E-commerce Reviews Decoded: The Power of LLMs in Rating Helpfulness*, ACOIT 2024.
- *Building Extensible Model for Healthcare Resource Allocation Using Model-Driven Approach*, IEEE SMC 2023.

- *Knowledge and Beliefs: A Relational Study on Compliance to Medication and Physical Exercise in Parkinson's*, IRTM 2023.
- *Prediction of Parkinson's Disorder: A Machine Learning Approach*, IRTM 2022.

Projects

Plotmeter

plotmeter.com

Backend & Full-Stack Development

- Built Plotmeter, a data-driven application focused on tracking and analyzing metrics with an emphasis on reliability and scalability.
- Designed backend services and APIs to handle data ingestion, processing, and retrieval.
- **Tech:** Next.js, MongoDB

The Senkai

thesenkai.com

Frontend & Full-Stack Development

- Built and deployed a production website using Next.js with a strong focus on performance, responsiveness, and SEO.
- Implemented Shopify integration to enable product listings, checkout, and order management.
- Collaborated closely with stakeholders to translate business requirements into a polished user-facing product.
- **Tech:** Next.js, React, Shopify