

cherian mathew

Software Developer / Designer / Architect / DevOps

contact

📍 Berlin, Germany

✉ contact@cherianmathew.me



identity

Indian (Male)

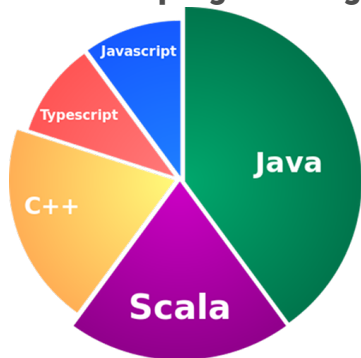
interests

Software Design / Architecture
Data Analysis
Scientific Visualisation

education

M.Sc. Computing Science &
Scientific Visualisation
M.Sc. Applied Statistics &
Informatics

programming



tools



OS



languages

Fluent: **English, Hindi**
Basic: **German (A2), French**

hobbies



about me

I strongly believe that **change is a necessary catalyst for growth**. Embracing change and adapting to new experiences has been a constant feature of my professional life. The possibility to learn, create and exposure to new experiences are my main sources of motivation.

I am currently open to interesting opportunities which deliver impact with the possibility to learn and innovate.

My expertise includes,

- Software Development and Deployment (DevOps)
- Technical Design and Implementation
- Project Bootstrapping and Roadmap Planning

In a nutshell, I love to design, architect and build software - not for the sake of it, but to solve real world problems and drive innovation.

Values : Zero tolerance for discrimination, Empathy, Open minded collaboration, Commitment to clients, Teamwork, Always learning, Open to constructive criticism, Respect privacy, Honesty.

Specializations : Communication, Ideation, End-User Interactions, Software Design, CI/CD, Containerization, Technical Writing, Getting things done, Being comfortable in my own skin.

Links

- <https://github.com/cheribhai>

experience

Industry / Research

01/2021–03/2023 **Dryad Networks GmbH**

Berlin, Germany

Co-founder & Cloud Platform Lead

Leading the design / development and responsible for resource / project management of the Dryad Silvanet Cloud Platform.

- Built the initial prototype of the web frontend (Typescript, Angular, PrimeNG)
- Development and maintenance of the backend (Scala, Play Framework, Directus, Postgres) with features including configurable LoRa payload codec, LoRa device registration and management, end device data streaming (MQTT) / storage / analytics, alert resolution and notification
- Setup of cloud (AWS) deployment following Infrastructure as Code practices (Kubernetes - EKS, Terraform, Drone) with CI / CD software lifecycle management

Other responsibilities included :

- Overseeing initial training and development of the ML / AI smoke detection model
- Project management and coordination between hardware, embedded software and cloud platform engineering teams
- First level customer support for PoC delivery and deployments

01/2020–12/2020 **Norwegian Refugee Council**

Berlin, Germany

Technical Lead

Contributing to the ongoing data-driven digital transformation within the organization.

Introduced and led the move towards a software development driven approach to building digital products / services within NRC, which included :

- DevOps culture (CI/CD, Docker, Kubernetes)
- Application / system security (pen-testing, CIS benchmarks, development best-practices)
- Software Development Life Cycle (from design to deployment)

Contributed to long term digital strategy - specifically in terms of technical guidelines and governance.

Participated in the design, development and support of NRC software products / services, including :

- Kubernetes (AKS) based deployment infrastructure
- Payment integration (python based) system to manage private donations
- COVID-19 Situation Response Application (Angular, Directus, ElasticSearch, Kibana)
- Beneficiary Management System (Angular, Directus)

01/2019–12/2019 **TeachSurfing**

Berlin, Germany

Software Developer / DevOps

Managed transition of legacy components to a containerized infrastructure along with deployment of an end-to-end software development workflow. Lead the effort to update the legacy web application to the latest technologies.

Responsibilities include:

- Migration of current AngularJS / Java Spring deployment to use Docker containers.
- Deployment of the containerized applications on AWS (IAM, EC2, S3, RDS)
- Setup of CI / CD build pipelines for the various projects.
- Update of the AngularJS Web UI to Angular (v7.x)

01/2016–12/2018 **brewlabs SAS**

Berlin, Germany / Sophia Antipolis, France

Co-founder & Technical Lead

- Supervised the architectural design evolution of the data analysis platform – Alambeek, built on flow-based programming concepts.
- Development of (Scala based) core projects of the platform including the web frontend (REST, Play), remote processor bundle (OSGI, Karaf) and service discovery api (SOAP, Zookeeper).
- Development of the platform's web user interface (Angular, Typescript).
- Designed and implemented updates to the flow engine (Apache Nifi) to make it modularised, scalable and schema (Apache Avro) oriented.
- Integrating authentication, authorization and user managed access (Keycloak) to secure the web application
- Support and assistance for the maintenance of the continuous integration system (Gitlab, Jenkins, Drone) as well as infrastructure tools (Docker, Kubernetes).

11/2011–11/2015 **Botanical Garden and Botanical Museum**

Berlin-Dahlem, Germany

Software Developer, Biodiversity Informatics

Contributed technical expertise to the taxonomy service set within the BioVeL project, specifically in the area of taxonomic name resolution, species occurrence retrieval and data cleaning, by developing / maintaining scientific workflows (Taverna, OpenRefine).

Actively engaged in software development activities related to the EDIT Platform for Cybertaxonomy including,

- design and implementation of fit-for-purpose, stream-lined and performant web services (Spring Web MVC, Hibernate).
- migration of the platform's desktop taxonomic editor to a remote client-server architecture (Eclipse RCP, Spring Remoting / Security).
- contribution to on-going continuous integration framework (Jenkins) as well as assisting in system administration (Linux).

05/2009–04/2011 **HPC/V (University of Groningen)**

Groningen, The Netherlands

Visualisation Expert

- Developed and maintained (C++, OpenGL-based) visualisation applications for the Virtual Reality Centre at the University of Groningen.
- Added functionality to the (OpenSceneGraph based) custom in-house viewer used to display large scale models.
- Used parallel rendering frameworks (Equalizer, Chromium) to extend PC standalone versions of visualisation software to create a scalable and distributed stereoscopic (3D) visualisation system.
- Participated as the the lead programmer in the construction of an augmented reality based educational exhibit (ARToolkit, ARToolkitPlus).

08/2001–08/2006 **AMADEUS**

Sophia Antipolis, France

Software Developer, Quality Assurance

- Developed and maintained an integrated test environment (Java, Swing) to perform test activities, primarily in the area of manual / automatic software testing and result analysis.
- Managed test activities on multi-platform systems including Unisys mainframes and Unix.
- Responsibilities included administering applications to ensure stability and processing test scenarios.
- Technical support provided to product definition teams, developers, code integrators and production operations.

education

09/2006–03/2009 **M.Sc.** Computing Science and Scientific Visualisation Groningen University, The Netherlands

Thesis *Coronary Artery Segmentation from Non-Contrast Cardiac CT for the purpose of Calcium Scoring* : Propose and implement a mechanism to segment coronary arteries in non-contrast CT datasets for the purpose of calcium scoring.

Main Courses Computer Vision, Advanced Computer Graphics, Scientific Visualisation, Geometric Algorithms.

08/1999–07/2001 **M.Sc.** Applied Statistics and Informatics Indian Institute of Technology, Bombay, Mumbai, India

Thesis *American Option Pricing* : Application of Options and Derivative techniques to Indian stock markets using historical data.

Main Courses Discrete Algorithms, Optimisation, C , C++.

08/1996–07/1999 **B.Sc.** Mathematics

St.Xavier's College, Mumbai, India

Major *Mathematics*: Group Theory, Analysis, Combinatorics

Minor Statistics, Economics

publications

A semi-automated workflow for biodiversity data retrieval, cleaning, and quality control

2 (Dec. 2014) e4221. 2014

BioVeL: A virtual laboratory for data analysis and modelling in biodiversity science and ecology

16 (Dec. 2016) p. 49. 2016

Marine long-term biodiversity assessment suggests loss of rare species in the Skagerrak and Kattegat region

(June 2017). 2017

Data Refinement Using the BioVeL Portal

2014