

Abin Binu

Senior Software Developer

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 Thiruvananthapuram, Kerala, India

 GitHub

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 LinkedIn

PROFILE

Results-driven software developer with comprehensive experience in microservices architecture, cloud platforms, and full-stack development. Proficient in modern frontend technologies and backend systems, with a strong focus on AI-powered solutions, identity management, and third party service integrations. Adept at leveraging agile methodologies to deliver scalable and efficient software solutions. Eager to apply a diverse technical skill set to drive innovation and contribute to high-impact projects within a dynamic organization

SKILLS

Programming Languages

- C#
- Python
- Javascript / Typescript
- T-Sql

Version Control & Collaboration

- Git
- Git Bash
- GitHub
- Azure Repo

Web Development

- Angular JS
- Dotnet Core
- HTML & CSS / Sass / Tailwind CSS / Bootstrap
- Full-Stack Development (CRUD operations, REST APIs, gRPC)
- Containerization - Docker, basic K8's
- Azure porta

Testing & QA

- Unit Testing, Integration Testing (XUnit, MOQ)
- Architectural Testing (NetArchTest.Rules)
- Behavioral and Frontend Testing (Jasmine, Jest)

PROFESSIONAL EXPERIENCE

Senior Software Developer

GeekyWolf Technologies pvt ltd 

11/2024 – present

Thiruvananthapuram,

India

- Collaborated with the **Data Architect** team to assist developers in building efficient and robust code within a **Microservices-based architecture**, using proper design principles and **Clean Architecture (Domain Driven Development)**
- Packaged shared services using **.NET's NuGet**, published them to **Azure Artifacts** with **proper versioning**, and integrated them throughout the codebase, resulting in faster load times and smoother service operations.
- Developed a **Stripe transaction simulator** for developers to test transactions, generating bills and invoices for upload to the accounting section.
- Implemented **Multi-Factor Authentication (MFA)** leveraging **Azure Custom Policy** and **Identity Experience Framework**, offering flexible authentication options such as **TOTP, email OTP, and a secure master passphrase system**.
- Wrote **Architectural Tests** enforcing **Clean Architecture, CQRS and other design principles**, Utilizing Azure Application Insights for web application performance monitoring.
- Worked on machine learning projects, including building and automating an **MLOps pipeline - ZenML, MLFlow and Kubeflow** to ensure efficient deployment and management of machine learning models in production
- Built advanced web scrapers for various websites, integrating **Windscribe VPN** into a CLI script for automated IP **rotation via PowerShell**, dynamically changing locations while scraping; plus, developed a browser extension to efficiently extract Google Maps data in real time.
- Designed an **ESP32**-based diffuser project, leveraging **MQTT with HiveMQ** for seamless IoT integration, making it an embedded systems project that enables smart and remote-controlled diffusion

Software Developer

GeekyWolf Technologies pvt ltd

- Used **Angular(15-17)**, Ng-Materials and other frameworks to create user interfaces (UI)
- Efficiently managed databases using **T-SQL**, and SQL Server. Delved into ORM concepts using **Entity Framework** and explored advanced topics like database caching with Redis, used message brokers (**RabbitMQ and Azure Service Bus**) for Queueing.
- Implemented **Docker** for streamlined deployment and integrated Azure for enhanced scalability, also worked with Pipeline YAML too.
- Meticulously utilized **Git** and **Git Bash** for version control, particularly in collaboration with Azure services.

11/2023 – 11/2024

Thiruvananthapuram,

India

Software Developer Intern

ControlQore Systems pvt ltd

06/2023 – 10/2023

Thiruvananthapuram,

India

- Actively participated in **Scrum meetings**, gaining insights into **agile development practices**.
- Learned various design patterns, software development lifecycles and coding practices to enhance development skills.
- Worked with databases, understanding the phases of software development: **development, QA, UAT, and Production**.
- Utilized technologies such as **Angular, Ionic**, and backend frameworks like .Net Core 6, also wrote Unit Tests and got proficient with versioning technologies like **Git**

PROJECTS

DKSRTC: Transforming Travel Experience

A Comprehensive Full-Stack Solution for Seamless Bus Ticket Booking

Designed and built a **full-stack bus ticket booking website** following **CORS** and **Clean Architecture principles**. Implemented a mediator pattern for seamless communication between components. The frontend was built using Angular, while the backend utilized **.NET Core** and **EF Core** as the ORM. The platform systematically handled bus ticket bookings and issued tickets efficiently.

Streamlining Machine Learning Operations

Building Robust Pipelines for Efficient Model Deployment and Management

Developed a robust MLOps pipeline using ZenML, Kubeflow, and MLFlow to build a version-controlled system. The pipeline ensures efficient **data processing, model training, and deployment with proper versioning and tracking of machine learning experiments**

RAG Application: Intelligent Document Interaction

A Custom Chatbot for Engaging Conversations with Uploaded Documents

A Custom Chatbot for **Engaging Conversations with Uploaded Documents** Created a **Retrieval Augmented Generation (RAG)** pipeline using Python and **Llama2** as the base model. The system processes uploaded documents (PDFs or other data types), **chunkifies the content**, and converts it into **vector embeddings** using an **embedding function**. These embeddings are stored in a **vector database**. When a query is entered, it is also vectorized, and the most relevant data is retrieved from the database and passed to the LLM, which **generates a natural language response with source mapping to the relevant document and page**

Web Scraper for Restaurant Data Collection

A scrapper for educational purposes

built a **web scraper** to extract restaurant data from a popular food delivery network in India using **Python, BeautifulSoup, and Selenium**. Key highlights of the project include:

Scraping dynamic content using **Selenium WebDriver** to interact with JavaScript-rendered pages.

Rotating IPs dynamically via **Windscribe VPN** using a PowerShell script.

Implementing Drission Pages for enhanced scraping in another project, optimizing structured data retrieval.

Bypassing restrictions by integrating **Tor network**

My Coding Journey: Fun Projects

Endeavors That Keep My Programming Passion Alive

- **Personal Portfolio Developed** and deployed a personal portfolio showcasing projects and skills using React and hosted on Netlify
- **Neural Network from Scratch** Built a neural network from scratch in Python, focusing on deep learning principles and backpropagation.
- **Heart Disease Classification** - Ensemble Model Created a heart disease classification model using ensemble techniques (Random Forest, Gradient Boosting) for improved accuracy.
- **Face Distance Analyzer** Developed a real-time analyzer to measure face distance from the camera using computer vision.
- **Blood Donation CRUD Application** Designed a CRUD app for managing blood donations with .NET Core and Angular.
- **American Sign Language Recognition** Implemented a computer vision model to recognize ASL gestures in real-time using image processing

EDUCATION

B.Tech in Computer Science Engineering (Specialization in AI & ML)

06/2020

Ludhiana, India

CT University

- **CGPA:** 8.1/10

- **Relevant Coursework:** Machine Learning, Software Engineering, Cloud Computing, Data Structures, Financial Systems Architecture

AISSE & AISSCE

Jawahar Navodaya Vidyalaya

06/2013 – 03/2020

Thiruvananthapuram,

India

- **X Standard (AISSE):** 88.2%

- **XII Standard (AISSCE - PCMB):** 89.4%