

# ADARSH G KRISHNAN

SOFTWARE ENGINEER - BACKEND, AI/ML

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Dynamic technology professional with 3 years of experience in backend development, specializing in scalable solutions and cloud technologies, with a keen interest in artificial intelligence and machine learning. Seeking opportunities to leverage technical expertise in backend systems and drive innovation to deliver impactful solutions

## Education

- M.Tech in Computer Science**  
IIT Kharagpur  
Aug 2021 - Jun 2023  
**Relevant Coursework:**  
Algorithm Design & Analysis, Computing Lab, Artificial Intelligence, Machine Learning, Information Retrieval, Deep Learning  
**Grade:** 9.06/10
- B.Tech in Electronics & Communication**  
SOE, CUSAT  
Aug 2015 - May 2019  
**Relevant Coursework:**  
Linear Algebra & Transform Techniques, Discrete Computational structures, Object Oriented Programming, Technical Comm. & Professional Ethics  
**Grade:** 7.94/10

## Core Competencies

Backend Development Strategies	API Design & Integration
Microservices & Design Patterns	System Optimization Practices
Cloud Infrastructure Management	Artificial Intelligence & Machine Learning
User Experience Enhancement	Data Analytics & Visualization
Agile Development Methodologies	Collaboration & Teamwork

## Key Highlights

- Awarded 'Outstanding' Performance Rating** (Top 5% of the workforce) for FY 2023-24 | **SMFG India** | Apr 2024
- Secured YIP Fellowship** (Top 180 Young Innovators selected from over 2000 applicants) | **Government of Kerala** | Dec 2018 - May 2021
- Represented IIT Kharagpur** at the **Smart India Hackathon** in the Student Innovations Category (Top 200+ entries) | **AICTE** | Mar 2022

## Profile Summary

### Developmental Expertise

- System Optimization:** Enhanced server-side APIs to efficiently manage 36,000+ daily requests, resulting in 20x faster data retrieval and significantly improving user satisfaction.
- Cloud Migration:** Successfully migrated on-premises services to SFDC Cloud, ensuring seamless scalability, reduced downtime, and improved system performance.
- Algorithm Framework:** Designed and deployed a black-box algorithm framework to enable Google Pay integration, streamlining payment processing while driving system efficiency and business growth.
- Workflow Automation:** Developed innovative backend services to reduce physical application processes by 90%, improving operational workflows, reducing manual dependencies, and accelerating turnaround time.

### Technical Proficiency

- Programming Languages:** Demonstrated expertise in C, C++, Java, Python, Apex, delivering robust, efficient, and scalable backend development solutions.
- Frameworks:** Proficient in frameworks such as Spring Boot, Django, SFDC, TensorFlow, Keras, PyTorch, supporting AI-driven projects and enhancing system capabilities.

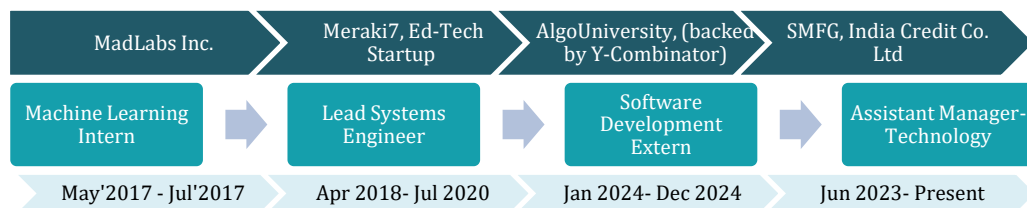
### Leadership & Collaboration

- Team Development:** Recognized for building and fostering collaborative team environments, promoting knowledge sharing, and mentoring team members to achieve organizational goals.
- Operational Efficiency:** Led key backend development and system optimization initiatives, resulting in improved operational efficiency and a superior user experience.

### Innovation & Emerging Technologies

- AI Integration:** Continuously exploring advancements in AI and machine learning technologies to develop innovative solutions that address complex business challenges and drive strategic impact.
- Technical Problem-Solving:** Delivered advanced backend development solutions tailored to meet the needs of financial services and educational technology sectors, ensuring scalability and alignment with industry standards.

## Career Timeline



## Work Experience

**Assistant Manager – Technology | SMFG India Credit Co. Ltd | Mumbai, Maharashtra | Jun 2023 - Present**

### Key Responsibilities:

- System Engineering:** Engineering scalable and robust backend systems using Java and Spring Boot, enhancing system reliability and overall performance by 20%.
- API Development:** Developing efficient and secure server-side RESTful APIs, handling 36,000+ requests per day while improving data access speed by 30%.
- Microservices Design:** Designing and deploying microservices within a liquid architecture framework, increasing system scalability and maintainability by 50%.
- Query Optimization:** Optimizing database queries and transactions in MySQL with Redis caching, achieving a 25% reduction in query response time.
- Asynchronous Processing:** Integrating RabbitMQ for asynchronous processing using a pub-sub model, leading to a 15% improvement in system throughput.
- Service Deployment:** Deploying and managing backend services on AWS (EC2, S3, RDS, Lambda) with CI/CD pipelines, ensuring 99.9% uptime and operational efficiency.
- System Resilience:** Applying system design principles, including load balancing and fault tolerance, to guarantee high availability and resilience.
- Data Encryption:** Implementing AES, RSA, and IV-based encryption mechanisms, ensuring data security and compliance with industry standards.



## Technical Skills

**Programming Languages:** C, C++, Java, Python, Apex, Bash



**Database Management:**

- SQL:** MySQL, PostgreSQL, SQLite, SOQL, SOSL
- NoSQL:** MongoDB, Amazon DynamoDB



**Libraries & Frameworks:** Spring Boot, Django, SFDC Frameworks, NumPy, Pandas, Matplotlib, PyTorch, TensorFlow, Keras, NLTK, WSO2, React



**Cloud Infrastructure:** AWS, SFDC Services



**Development Skills:** Object-Oriented Programming (OOP), Multithreading, Socket Programming, Web Scraping



**Tools & Technologies:** Git, Linux, Docker, RabbitMQ, Redis, Kafka, Web Servers, Web Clients



## Certifications

- NVIDIA DLI Certificate:** *Accelerating Data Engineering Pipelines | Fundamentals of Deep Learning* | Feb 2022
- Deep Learning Specialization:** *Andrew Ng | deeplearning.ai* | Coursera | Sep 2019
- Intro to Programming Nanodegree:** Udacity | Jan 2017
- Statistics and Probability for Quantitative Finance:** Udemy | Aug 2022



## Positions of Responsibilities

- Mentored 1st-year students to develop programming skills: Teaching Assistant- PDS Lab | Apr 2022- Jun 2023
- Served as Class Representative for 3 consecutive years | ECE SOE CUSAT | Aug 2016- May 2019
- Facilitated International Conference on Science And Technology ( in Collaboration with a team of 10 ) | CUSAT | Apr'2018

- Cloud Transition:** Contributing to the migration of on-premises services to SFDC cloud, streamlining operations and improving system reliability, resulting in a 20% increase in operational efficiency.
- Algorithm Development:** Developing a black-box algorithm framework for Google Pay integration, accelerating transaction processing by 40% and driving a 25% improvement in business outcomes.
- Code Reviews:** Leading code reviews and collaborating with cross-functional teams, ensuring adherence to industry best practices and improving overall code quality.
- Performance Enhancement:** Identifying and resolving performance bottlenecks, resulting in a 30% increase in application efficiency and overall performance.

Software Development Extern | AlgoUniversity (backed by Y-Combinator) | Remote | Jan 2024 - Dec 2024

### Key Responsibilities:

- Collaborative Development:** Collaborated with 5+ senior engineers from top-tier tech companies such as Google, Apple, Microsoft, and Alphagrep, gaining hands-on experience in innovative software solutions and industry-standard development best practices.
- Application Design:** Contributed to the design and development of scalable applications while optimizing performance and enhancing system efficiency by 25%.
- Algorithm Refinement:** Engaged in cross-functional learning to refine algorithms and implement best coding practices, resulting in a 25% improvement in code quality and a 20% reduction in bug incidence.
- System Implementation:** Developed **codeXpert**, an online judge system featuring user authentication and automated evaluations, improving user engagement by 30% and ensuring system scalability through Docker implementation.

Lead Systems Engineer | Meraki7 | Ed-Tech Startup | Ernakulam, Kerala | Apr 2018 - Jul 2020

### Key Responsibilities:

- Algorithm Optimization:** Optimized an in-house algorithm, resulting in a 5% reduction in operational costs and a 10% improvement in system efficiency.
- Predictive Modeling:** Conducted predictive modeling to analyze customer behavior, reducing the bounce rate by 15% and achieving a 20% increase in user retention.
- System Enhancement:** Enhanced system architecture and contributed to the development of key platform features, leading to a 25% increase in user engagement and a 15% improvement in platform stability.
- Performance Optimization:** Led troubleshooting and optimization initiatives, enhancing overall application performance by 30%.
- Workshops & Engagement:** Conducted educational workshops as part of new initiatives, contributing to a 15% growth in user engagement within the first month.

Machine Learning Intern | MadLabs Inc. | Remote | May 2017 - Jul 2017

### Key Responsibilities:

- System Enhancement:** Proposed and implemented an interactive system to enhance user experience, resulting in a 10% increase in website traffic and improved user engagement.
- Code Optimization:** Optimized code for standardizing machine learning models, boosting their performance on unseen data by 20% and reducing code complexity by 20%, resulting in a 30% faster execution time.
- Algorithm Collaboration:** Collaborated with cross-functional teams to fine-tune algorithms, achieving a 25% improvement in system efficiency and a 20% increase in user interaction.
- Data Analysis & Feature Engineering:** Conducted data analysis and feature engineering, improving model accuracy by 18% and enhancing feature relevance, directly contributing to a 15% increase in product success metrics.



## Projects

[Few-Shot Prediction on Brain Signals](#) | Mentor: Prof. Debasis Samanta | Apr 2022 - Jun 2023

- Enhanced BCI feasibility in low-data environments, reducing data preparation costs by 80%.
- Revamped a few-shot-based EEG signal pipeline, accelerating the training cycle by 10x and improving F1 score by 5%.

**Technologies Used:** Python, TensorFlow, Keras, PyTorch, NumPy, Pandas, Matplotlib

[CodeXpert: An Online Judge System](#) | Mentor: Swapnil Daga | Aug 2024 - Sep 2024

- Designed, developed, and deployed an Online Judge platform with automated code evaluation and 5+ key features.
- Implemented a multi-language execution engine using Docker containers, processing 500+ daily submissions.

**Technologies Used:** Python, Django, MySQL, React, Docker, JWT Authentication

[Cataverse: A Product Catalog Management System](#) | Self-Project | Nov 2024 - Dec 2024

- Designed and implemented a RESTful API for managing a product catalog, enabling CRUD operations, filtering, and caching with Redis, boosting response times by 30%.
  - Engineered efficient product retrieval and filtering features, handling over 10,000 product requests daily, with robust logging and performance tracking.
- Technologies Used:** Java, Spring Boot, Redis, PostgreSQL, SLF4J, OpenAPI, Micrometer, RESTful APIs.