Role: Senior Developer and Designer
Organization: A4I Lab (A Collaboration between Microsoft and IIIT-B)
Experience Required: 4-6 years
Type: 1-year contract, renewable annually

About A4I Lab:

AI Innovation and Inclusion Initiative (A4I) is a partnership hub between Microsoft and the International Institute of Information Technology, Bangalore (IIIT-B), collaborating with several non-profit domain partners. A4I's mission is to harness the power of **Artificial Intelligence** to solve real-world challenges in areas such as education, healthcare, accessibility, and agriculture. A4I will take up innovations developed and piloted by Microsoft to evolve and scale them in open source as DPGs (Digital Public Goods) deployable at a large scale. The broader goal is also to help foster a strong AI innovation ecosystem for effective **social impact through the latest advances in AI technology**.

Role Overview:

In the Senior Developer role at A4I, we are seeking a hands-on team leader with a strong understanding of tech full-stack fundamentals, GenAI technology integration, and the ability to apply them in design and development. They should be able to build solution architecture, help with technical design, and provide hands-on contributions throughout the lifecycle of the projects under A4I, while coaching and enabling team members to accelerate innovation development to production.

What We Offer:

- A chance to be a senior developer and designer of **high-impact projects**
- Collaboration with **world-class researchers and developers** at Microsoft Research.
- A mission-driven environment with access to **advanced tech stacks and infrastructure**.

Key Responsibilities:

- **Architecture, design, and development** of end-to-end web applications.
- **API Development and Integration:** Develop and integrate RESTful APIs to connect frontend and backend components, ensuring smooth data flow and communication between different parts of the application.
- **Database Management:** Design, implement, and manage databases, ensuring data integrity, security, and optimal performance.
- **Version Control and Collaboration:** Use Git and other version control systems to track code changes and collaborate with other team developers.
- **Security Implementation:** Implement security best practices to protect the application from vulnerabilities, including authentication, authorization, and data encryption.
- **Cross-Platform Optimization:** Ensure the application is responsive and optimized for different devices, platforms, and browsers.
- Guide junior developers through code reviews, mentoring, and technical leadership.
- Contribute to technical decision-making and long-term platform strategy.
- Automate deployment processes, manage cloud infrastructure, and ensure the scalability and reliability of applications through CI/CD pipelines.

Required Qualifications:

- Bachelor's or Master's degree in Computer Science, Engineering, or related field.
- **4-6 years of full-stack development and design experience**, with demonstrable ownership of past projects.
- Expertise in **front-end frameworks** like **React.js**, **Vue.js**, or **Angular**.
- Strong back-end development experience using **Node.js**, **Django**, **Express.js**, or similar.
- Proven experience designing and consuming **RESTful APIs** and working with **SQL/NoSQL databases**.
- Proficiency with cloud infrastructure and services (**GCP, Azure, AWS etc**)
- Good understanding of **Retrieval-Augmented Generation (RAG) patterns**, including custom retrieval pipelines
- Understanding of **vector database** selection, tuning, and optimization
- Strong understanding of **software architecture patterns**, **authentication/authorization**, and **DevOps workflows**.
- Experience with Git, CI/CD pipelines, and containerized deployments (e.g., Docker).
- Familiarity with **data privacy** (GDPR, CCPA) and **security best practices** when using LLMs

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Preferred Qualifications:

- Prior experience in design and implementation of **large scale** full-stack applications
- Prior experience integrating AI/Gen AI/ML features into applications.
- Familiarity with **data visualization**, **dashboarding tools**, or real-time analytics.
- Passion for building technology for **public good and social impact**.
- Contributions to open-source projects or public portfolios.

To Apply:

Send your resume and a short note to:

a4i@iiitb.ac.in

(Please include: "Application for A4I Senior Developer/Designer role" in the email subject