

AKASH KUMAR P

SENIOR SOFTWARE ENGINEER

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PROFILE

Highly dedicated and efficient Full Stack Developer with over 6 years of experience specializing in the development and enhancement of web applications. Adept in utilizing a wide range of technologies, including Python, advanced Django, Flask, PostgreSQL, React, and AWS. Possesses proficient skills in generative AI techniques, demonstrating hands-on expertise in core components such as LLMs, embedding models, vector databases, and fine-tuning. . Fueled by a strong sense of accountability and ownership, I am driven to achieve and exceed project goals

SKILLS

- **Backend Technologies:** Python, Django, FastAPI, Flask
- **Frontend Technologies:** HTML, CSS, Javascript, React, Redux
- **Core Skills** - Data Structures and Algorithms, Design Patterns, System Design
- **Architecture Knowledge:** Monolithic, Microservices, Container-based, Event-driven, Serverless
- **Cloud Services:** AWS - EC2, S3, ELB, CloudFront, Route53, RDS, SageMaker, Lambda
- **Database:** PostgreSQL, MySQL, Redis
- **Message & Task Queue:** RabbitMQ, Kafka, Celery
- **Web Servers:** Unicorn, Nginx, Wsgi, Asgi
- **CI/CD tools:** Docker, Jenkins, CircleCI
- **Generative AI:** Embedding models, LLMs, vector databases, Privacy & Security related to GAI.
- **Soft Skills:** Team Player, strong communication, ownership & leadership

EXPERIENCE

SENIOR SOFTWARE ENGINEER

Bluetick Consultants LLP

Bangalore - India

Aug 2021 - Present

- Designed and developed full-stack web applications using Python, Django, Django Rest Framework, Flask, React, Redux, PostgreSQL, MySQL, Redis, RabbitMQ, Kafka, Celery, etc.
- Proficient in using AWS Services such as EC2, S3, ELB, CloudFront, RDS, Lambda, SageMaker, etc for deployment and management of applications.
- Led the development of a semi-intelligent chatbot for Link Intime that has been used by more than 500,000 users, reducing the load on the support team by almost 30%.
- Developed innovative generative AI solutions, including BluetickPDF, BluetickEbooks, interviewGPT, Sales Call Evaluator, etc
- Demonstrated ability to understand customer requirements, design system architecture, and manage projects from conception to deployment.
- Proficient in message brokers such as Kafka, Redis, and RabbitMQ, and task queues such as Celery.
- Proficient in various architectural paradigms, including Monolithic, Microservices, Container-based, Event-driven, and Serverless architectures.
- Led and managed multiple project teams, optimizing collaboration and delivering exceptional results while acting as a key point of contact for clients, fostering strong relationships.

SOFTWARE ENGINEER

Accord Global Technology Pvt Ltd

Bangalore - India

Jul 2017 – Jul 2021

- Developed a platform to store documents in a database, using Django and SQL Server 2017, allowing the company to be a Paperless Office.
- Used FILESTREAM in MS SQL Server to store a huge amount of documents.
- Collaborated closely with cross-functional teams, including backend developers, frontend developers, quality assurance testers, and CTO, to ensure seamless project execution.
- Demonstrated end-to-end ownership of the application development process, from initial design to rigorous testing and successful product launch

EDUCATION

BACHELOR OF ENGINEERING

Sapthagiri College of Engineering

Jun 2013 – Jun 2017

Field of Study - Information Science

Result - 70% aggregate

Subjects - Data Structures & Algorithms, C, Java, OS, Software Architecture, etc

PRE-UNIVERSITY (GRADE 12)

KLE's Pre University College

Apr 2011 – Mar 2013

Result - 70% aggregate

Subjects - Physics, Chemistry, Mathematics, Biology

HIGH SCHOOL (GRADE 10)

St Mary's Public School - [ICSE Board]

Mar 2010 – Mar 2011

Result - 80%

BLOGS

POSTGRESQL

Evolution of JSONB - PostgreSQL

Window Functions with Django ORM
- (ROWS, RANGE and GROUPS)

Window Functions with Django ORM
- (LAG/LEAD, PARTITION BY, EXCLUDE)

Window Functions with Django ORM
- (RANK, ROW_NUMBER, NTILE)

Window Functions Use Cases

GENERATIVE AI

Elevating AI with Reinforcement
Learning from Human Feedback

Parameter-Efficient Fine-Tuning

PrivAlcy Matters: Balancing Privacy,
Price, and Performance in
In-House LLM Deployments

The LLM Face-Off: GPT 3.5 Turbo,
Llama 2 7B, and Falcon 7B

BluetickPDF, BluetickEbooks

Bluetick's Sales call Evaluator

PROJECTS

IDIA CHATBOT - SENIOR FULL-STACK ENGINEER

Brief Description: IDIA is a semi-intelligent, web-based, responsive chatbot designed and developed for Link Intime - India's largest and most trusted name in IPO and Corporate Registry Industry.

Tech Stack: Python Django, React, Redux, redux-thunk (middleware), material UI, PostgreSQL, AWS Services like EC2, S3, ELB, CloudFront, RDS, etc,

Contribution:

- Acted as a liaison between the company and the customer to ensure smooth and efficient project development.
- Understanding customer requirements and designing System Architecture, schema design
- Designed and developed APIs using DRF as per design, and reviewed frontend React components for chatbot and its custom Admin Panel.
- Documented tech requirements, the scope of work, HLD, and LLD.
- Developed data migration scripts

INTERVIEWGPT - TECHNICAL LEAD

Brief Description: InterviewGPT is a cutting-edge product utilizing generative AI to streamline candidate screening and initial assessments, reducing the need for extensive involvement of subject matter experts.

Tech Stack: Python Flask, SQLAlchemy, Alembic, React, TypeScript, Tailwind CSS, Redux, Langchain, OpenAI's GPT-4, RAG, LanceDB (Vector Database), Embedding Mode, AWS

Contribution:

- Led a team of four proficiently, ensuring cohesion and productivity throughout the project lifecycle.
- Engaged in all stages of the Software Development Life Cycle (SDLC), from conceptualization to deployment.
- Documented technical requirements, scope of work, and produced HLD, and LLD documents, ensuring clear project understanding and alignment.
- Developed API endpoints and frontend components, harmonizing functionality and user experience.
- Orchestrated the deployment of the application on AWS, ensuring scalability, reliability, and security.

FINANCE MANAGEMENT SYSTEM (FMS)

Brief Description: FMS is an all-in-one general ledger system that is used to capture incomes and expenditures to generate financial reports. It also includes client and employee management features to generate detailed reports.

Tech Stack: Python FastAPI, React, Redux, redux-thunk, PostgreSQL, AWS

Contribution:

- Understanding requirements and designing system architecture, and schema design.
- Designed and Developed secure APIs using FastAPI
- Developed various react components as per design using material UI.
- Deployed the application on AWS.