

Avinash Pawar

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SUMMARY:

- Results-driven Software Development Engineer with 4+ years of experience building scalable backend services, cloud-integrated applications, and production-grade software systems across healthcare, finance, and retail domains.
- Deep expertise in Python and modern backend development with frameworks and tools such as Flask, Django, SQL, and REST APIs; delivered resilient services powering real-time, high-throughput environments.
- Skilled in AWS architecture (S3, Lambda, CloudWatch) and automation, enabling fault-tolerant deployments and cutting downtime by 45%.
- Implemented CI/CD pipelines using GitLab and Jenkins; accelerated delivery through TDD and automated release workflows.
- Strong advocate of software craftsmanship and Agile collaboration; led third-party API integrations and cross-platform feature development while applying design patterns, clean code principles, and modular architecture to deliver scalable, maintainable solutions with high user impact.
- Contributed to microservice architecture reviews, ensuring scalability, high availability, and adherence to engineering best practices.

SKILLS:

Programming Languages	: Python, SQL, C++, JavaScript, Java, Shell Scripting
Web & Frontend	: HTML, CSS, Tailwind CSS, React, Redux, jQuery, AJAX, JSON, XML
Backend & APIs	: Flask, Django, Node.js, REST APIs, Postman, FastAPI
Databases	: PostgreSQL, MySQL, SQL Server, MongoDB, Oracle, Firebase, DynamoDB, Hadoop, Spark, BigQuery
DevOps & Tools	: Git, GitHub, Jenkins, Docker, Jira, JDBC, Servlets, JSP, GitLab, Maven, Gradle, Agile, Scrum, SDLC
Machine Learning Tools	: SciPy, Scikit, Pandas, NumPy, PyTorch, Regression, Classification, Clustering, Decision Trees, Neural Networks
Cloud Platforms	: Linux/Unix, AWS (S3, EC2, RDS, Lambda), Google Cloud Platform, Cloud native technologies
Generative AI	: LangChain, Hugging Face Transformers, OpenAI API, Google Gemini API, Streamlit

EDUCATION:

Master of Science in Data Science

August 2021 – May 2023

Indiana University, Bloomington, Indiana, USA

Coursework: Statistics, Machine Learning, Cloud Computing, Advanced Database Concepts, High-Performance Computing, Signal Processing, Bioengineering.

Achievements: Secretary, Data Science Club / Google Advanced Data Analytics Professional Certificate, [Link](#) / Winner, AWS Game Day challenge, [Link](#)

Bachelor of Technology in Computer Science

June 2016 – March 2020

Shivaji University, Kolhapur, India

Coursework: Distributed Systems, Operating System, Computer Networking, Database Management Systems, Data Mining, Algorithms, Microprocessors.

EXPERIENCE:

Software Development Engineer | CVS Health | Bloomington, Indiana, USA

October 2023 – Till Date

- Led the development of scalable Python-based backend services for data-intensive applications, integrating with AWS S3 and RDS to support 4TB/day workloads with 60% improvement in processing speed and fault-tolerant execution.
- Built CI/CD pipelines in GitLab & Jenkins; automated deploy/testing of Apache Airflow jobs using Agile/Scrum and TDD for faster delivery.
- Refactored legacy Python and SQL using modular design, migrating core services to Snowflake/AWS and improving query response by 40%.
- Applied OOP/design patterns in Python microservices; boosted code modularity and cut deployment bugs by 35%.
- Contributed to the design and monitoring of distributed microservices handling high-throughput data pipelines; implemented AWS CloudWatch and custom health checks to ensure fault tolerance, horizontal scalability, and reduced production issue resolution time by 45%.
- Applied object-oriented principles and design patterns to build modular, testable Python components within microservice architecture; improved code maintainability and reduced deployment-related defects by 35%.

Research Assistant | Indiana University - Kelley School of Business | Bloomington, Indiana, USA

October 2021 – May 2023

- Automated the digitization of invoice data from PDFs into a centralized database using SQL and Python, reducing processing time by 25%.
- Enhanced data accuracy and integrity via robust validation and cleansing; presented analysis results via Tableau and Excel.
- Collaborated with cross-functional teams to redesign database architecture, develop data templates, and improve data scraping methodologies.
- Executed SQL queries to extract and analyze 1M+ financial transactions from multiple tables. Collaborated with stakeholders to identify data sources, improving accuracy by 20%. Utilized Excel (Pivot Tables, VLOOKUP, Macros) to ensure data compliance and integrity.
- Developed interactive Tableau dashboards with calculated fields and KPIs, reducing manual data analysis efforts by 30%.

Software Engineer, Data Platform | Tata Consultancy Services | Pune, India

August 2020 - August 2021

- Designed and maintained scalable database solutions for mission-critical applications, ensuring high availability and optimal performance.
- Optimized SQL queries, achieving a 40% reduction in query execution time and improving overall database performance by 12%.
- Integrated RESTful API web services for precise data retrieval and storage, optimizing external data source interactions.
- Collaborated on developing web applications for a local grocery store and a hotel inventory management system using Django and MySQL. Implemented seamless e-commerce features including payment gateway integration, order tracking, and inventory management.
- Architected a Python-based data pipeline using Selenium to automate data scraping, preprocessing, and modeling of utility data.

Associate Software Engineer | Digital Microsys Technologies | Kolhapur, India

January 2019 - July 2020

- Developed backend modules using Java and JSP to support key features in internal tools and customer-facing web applications.
- Built dynamic frontend components using React.js and Bootstrap, enhancing UX and reducing page load latency by 20%.
- Designed and optimized relational database schemas in PostgreSQL and MySQL, improving query efficiency and reducing load times.
- Collaborated in Agile sprints to deliver full-stack features, ensuring alignment across backend logic, data layer, and UI.
- Integrated Java-based services with relational databases and REST APIs; contributed to full-stack features within a Spring MVC-like architecture.