

NIKSHEP A KULLI

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SUMMARY

Senior Software Engineer with over 6 years of experience in software engineering and technical leadership. Proficient in Java, Python, AWS, Terraform, and modern full-stack technologies, including React and Node.js. Demonstrated expertise in building scalable platforms, implementing Infrastructure as Code (IaC), leading cross-functional teams, and deploying secure and efficient cloud infrastructure. Passionate about leveraging cloud infrastructure, AI, DevOps practices, and mobile technologies to create impactful solutions. Committed to driving innovation, mentoring emerging talent, and delivering secure, high-performance systems that foster growth and user engagement through modern engineering practices.

EDUCATION

Sacred Heart University

Fairfield, CT

Master of Science - Computer Science & Information Science - Data Science; GPA:3.9/4

Dec 2023

Relevant Coursework: Machine Learning, Deep Learning, Big Data Analytics, Data Science Architecture, Advanced Database Design, Applied Statistics, Advanced Scripting Python, Special Topics in Data Science

M S Ramaiah University

Bengaluru, India

Bachelor of Engineering - Engineering in Electrical & Electronics Engg

Jul 2018

P. V. P Polytechnic

Bengaluru, India

Bachelor of Technology - Diploma in Electrical & Electronics Engg

May 2014

EMPLOYMENT

Starteryou Inc.

New York, NY (Remote)

Senior Software Engineer

Jul 2024 – Present

- Led technical development for Starteryou, a platform connecting teenagers and college students with part-time job opportunities, serving thousands of active users.
- Architected and managed a scalable multi-environment infrastructure for development (dev), production (prod), and database layers using Terraform modules for consistent deployments.
- Designed and implemented comprehensive Infrastructure as Code (IaC) using Terraform, managing AWS resources including EC2 instances, RDS databases, VPCs, security groups, and S3 buckets with version-controlled state management.
- Built reusable Terraform modules for common infrastructure patterns, reducing provisioning time by 60% and ensuring consistent environment setups across development, staging, and production.
- Implemented Terraform workspaces and remote state management using S3 backend with DynamoDB locking, enabling collaborative infrastructure management and preventing state conflicts.
- Automated infrastructure provisioning and updates through Terraform CI/CD pipelines, integrating with GitHub Actions for infrastructure validation, planning, and deployment.
- Implemented HTTPS encryption using Let's Encrypt with Terraform-managed certificate automation, enabling secure communication across the platform, complemented by SSL and password protection for robust database security.
- Enhanced database access control by configuring IP whitelisting on MongoDB servers through Terraform security group rules to restrict unauthorized access and improve overall security posture.
- Designed and developed a caching and cookie management mechanism integrated with a metadata-driven framework, optimizing response times and ensuring a seamless user experience.
- Spearheaded the development of a mobile application using React Native, extending platform accessibility to iOS and Android devices.
- Directed a team of 10 developers, adopting Agile methodologies and leveraging GitHub Projects for sprint planning, task tracking, and retrospectives.
- Established CI/CD pipelines with GitHub Actions to streamline deployment workflows, reducing release times by 40% and integrating Terraform plan/apply automation.
- Strengthened platform scalability with Docker-based containerization and planned Kubernetes integration for advanced orchestration and auto-scaling, with Terraform EKS module preparation.
- Drove significant user adoption and engagement within six months by delivering a secure, high-performance, and user-centric platform built on robust cloud infrastructure.

- Engineered and launched a real-time ride-sharing feature that matches student riders with nearby drivers based on geolocation, optimizing route efficiency and reducing wait times.
- Integrated Stripe as a payment gateway, enabling secure fare transactions and implementing webhook handling for seamless post-payment operations.
- Optimized application delivery with multi-stage Docker builds, significantly reducing container size and improving deployment speed across development and production environments.
- Implemented monitoring and alerting using CloudWatch with Terraform-managed dashboards and alarms, ensuring proactive infrastructure health monitoring and automated incident response.
- Managed AWS cost optimization through Terraform-configured auto-scaling groups, scheduled instance scaling, and resource tagging strategies, resulting in 35% reduction in infrastructure costs.

Sacred Heart University

Adjunct Professor, CSIT

Fairfield, CT

Jan 2024 - Dec 2024

- Developed and delivered MongoDB courses, covering architecture, implementation, and advanced features.
- Advanced techniques in text-based analysis, including NLP, LDA, sentiment analysis, and text summarization.
- Instructed courses on C++ programming language and data structures, ensuring proficiency and strong foundations.
- Led courses on data architecture principles, covering database design, optimization, and scalability.
- Fostered an interactive learning environment through engaging lectures and hands-on projects, emphasizing collaboration and creative thinking.
- Contributed to curriculum development and stayed updated with latest advancements, showcasing critical thinking and problem-solving skills.

British Airways

Data Science Virtual Intern

Fairfield, CT

May 2023 - May 2023

- Developed web scraping techniques using tools like BeautifulSoup to extract valuable data from websites.
- Performed data analysis and visualization using Python libraries like Seaborn, NumPy, and Pandas.
- Uncovered competitor strategies, market dynamics, and customer behavior to facilitate data-driven decision-making, showcasing strong project management skills.
- Utilized machine learning expertise and Scikit-learn/Random Forest algorithms to build a predictive model for customer buying behavior.
- Achieved 85% accuracy in predicting customer preferences and purchase patterns.
- Empowered the company to tailor marketing strategies, enhance customer segmentation, and optimize business operations for sales growth and customer satisfaction.
- Demonstrated collaboration and critical thinking throughout the project.

Sacred Heart University

Research Assistant

Fairfield, CT

Jan 2023 - May 2023

- Achieved 95% accuracy in breast cancer prediction using linear regression on the Scikit dataset.
- Conducted sentiment analysis on tweets with an 85% accuracy rate.
- Identified prevalent topics and sentiments in COVID-19 tweets using LDA analysis.
- Designed Vinyl Rack for the IDEA Lab, resulting in a 30% increase in storage capacity and an award for outstanding creativity and innovation. Demonstrated problem solving and creative thinking skills.
- Accomplishments showcase the ability to deliver impactful results, utilizing data-driven approaches that improve business outcomes.
- Possesses strong analytical skills and the ability to work with large datasets, making for a valuable asset in any research or data-driven project.

Cerner Corporation

Software Engineer II

Bengaluru, India

Dec 2019 - Aug 2022

- Wrote Call Home scripts using SQL, PL-SQL, T-SQL, VB Script, Power Shell, and database queries. Results stored in the Cloud Transport Service CCTS and displayed in Vertica & Lon databases.
- Improved Jetstream framework CSV reader and Call Home data collection framework.
- Created a Java Native Interface to fetch free disk space on Linux servers using JavaScript & C++.
- Enhanced server identification scripts and crash collect dump data collection.
- Eliminated sensitive password display in the Millennium domain for the Olympus application using JavaScript.
- Streamlined Workflow Analyzer workflows using the new CorrelationID parameter and optimized timers.
- Designed a CallHome user interface portal using the Django framework and Python.
- Wrote a JavaScript to create new datastores in the Olympus user interface.

- Developed RESTful web services using Spring Boot to handle CRUD operations for various microservices.
- Utilized Spring Security for authentication and authorization, integrating OAuth2 and JWT for secure API endpoints.
- Implemented Spring Data JPA for database interactions, enabling efficient query handling and database management.
- Leveraged Spring Cloud for service discovery, configuration management, and distributed logging/tracing with tools like Eureka, Config Server, and Sleuth.
- Utilized Maven for project build management and dependency resolution in a multimodule Spring Boot application.
- Wrote unit and integration tests using JUnit and Mockito to ensure code quality and reliability.
- Deployed Spring Boot applications on cloud platforms such as CCTS and Azure, utilizing Docker for containerization.
- Experienced in performance tuning and optimizing Spring Boot applications, utilizing caching techniques and asynchronous processing to enhance scalability.

6D Technology

Software Engineer

Bengaluru, India

Jul 2019 - Nov 2019

- Constructed a React element for a tree structure using JSON and Reactstrap in the Magik UI project.
- Wrote services in Spring Boot for the React tree view with CRUD operations.
- Implemented a feature in SMSC GUI to view MSISDN reports utilizing Java and JSP servlets.

Probots Techno Solutions

Software Engineer

Bengaluru, India

Jun 2018 - Jul 2019

- Formulated a native C/C++ keycode API to interact with a REST API for controlling a kidney dialysis reprocessing unit for GK Healthcare.
- Developed an Android app with an API to connect with a GPS tracker kit for Alpine Star.
- Engineered a remote control that uses Bluetooth and enables recording and clicking of videos on RTMP and RTSP servers.
- We developed a pet tracker app using Android, Arduino GPS, C/C++, REST API, Google Maps API, and JSON.
- Constructed a custom camera app that captures photos and QR codes with autofocus.
- Live video streaming implemented with RTSP and RTMP servers.

ACHIEVEMENTS

Future of Information and Communications Conference - Jun, 2023 - Published research article "COVID-19 Vaccine Response on Social Media using LDA Analysis".

International Conference on Computer Science, Engineering & Applications (ICCSEA) - Oct, 2024 - Published research article "The Gambit of De-Dollarization: Unveiling New Currency Frontiers through NLP".

InnobaInMe Award - May, 2021 - Deepak Gupta, Director - Introduced AI to ventilators and showcased how we can optimize the usage of ventilators.

Associate Behavior Award - Oct, 2021 - Ajay Arora, Senior Director - Received for Innovate & Simplify in CWx for the VS Code plugin made for Call Home developers.

Ship IT IX - Jun, 2021 - 24H coding challenge to design, develop, and showcase. Created a React application that collects associate experience and states the mental health of an employee.

Ship IT XI - Jan, 2022 - Won ShipIt second place for INGEST - an interactive GesturesAI-based Android application for understanding hand gestures in sign language. It helps connect with challenged individuals and understand them.

SKILLS

Programming Languages: Java, R, Python, JavaScript, C, C++, C#, VBScript, SQL

Infrastructure & DevOps: Terraform, AWS (EC2, RDS, S3, VPC, CloudWatch), Docker, Kubernetes, Jenkins, CI/CD, Infrastructure as Code (IaC)

Databases: MongoDB, PostgreSQL, Hadoop, Cassandra, MySQL

Frameworks & Libraries: Spring Boot, Hibernate, Django, React, Node.js, Keras, Pandas, NumPy, Scikit-learn, NLTK, spaCy, HuggingFace

Tools & Platforms: Git, GitHub Actions, Jupyter, Pytest, Agile, JIRA, Tableau, Seaborn, Matplotlib, Airflow

Operating Systems: Linux, Windows