Kihoon Kim

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Summary

Software Engineer specializing in automating CI/CD pipelines, managing cloud-native applications, and optimizing system scalability and reliability. Proficient in AWS, Kubernetes, Docker, and Terraform, with a proven track record of reducing deployment time by 40% and achieving 99.9% uptime through efficient cloud infrastructure automation. Skilled in designing cost-effective and secure systems for large-scale environments.

Experience

Duel, Data Engineer   Irvine, CA | Sep 2024 - present
- Automated video content extraction into Quizlet decks by optimizing costs through reuse of existing deck categories and streamlined deployment workflows using Terraform.
- Reduced S3 read times from 4,000 seconds to 0.05 seconds by implementing a DynamoDB category-based querying system.
- Deployed serverless pipelines with AWS Lambda, enabling seamless processing for 20M+ user requests.

NewsExplorer, Data Engineer   Irvine, CA | Sep 2024 - present
- Designed a system to filter, summarize, and analyze news articles based on preferences, supported by scalable infrastructure for FactCheck pipelines.
- Evaluated Cascade and Stacking methods for FactCheck Agent orchestration, balancing accuracy and resource efficiency.
- Integrated CloudWatch for monitoring and alerting to ensure pipeline reliability during real-time data analysis.

Rootin, Data Engineer   Irvine, CA | Sep 2024 - present
- Developing a system to automate plant care through soil moisture measurement while optimizing automation costs by 50% through migration from MWAA (Airflow) to EventBridge.
- Implemented real-time IoT data pipelines with AWS Kinesis and MSK (Kafka) for reliable data ingestion and processing.
- Utilized CloudWatch and Lambda to dynamically manage workloads and ensure system stability.

Skills

- Programming: Python, Bash, Javascript, PowerShell, HTML, Javascript, Node.js
- Frameworks & Libraries: Express.js, Flask, TensorFlow, Scikit-learn, Pandas, Matplotlib
- Automation: Terraform, Airflow
- Database Systems: PostgreSQL, MySQL, DynamoDB
- Tools: Figma, Slack, Notion, Jira, LLM(GPT)

AWS (Practitioner Certification)
- Leveraging AWS Infrastructure and Analytics Services to Build a Serverless Data Lake
- Implemented a large-scale data processing and content generation system leveraging AI/ML and automation services

Education

Bachelor of Science, Physics & Electronic Engineering
Kookmin University, Seoul, South Korea
Expected graduation Feb 2025