Mohammed Kalefa

+1 (929)-377-8497 | homdykalefa@gmail.com | linkedin.com/in/mohammed-kalefa | github.com/SudanySwag

EDUCATION

Rensselaer Polytechnic Institute — May 2026
Bachelor of Science in Computer Science — *Troy, NY*

Relevant Coursework:

Machine Learning, Natural Language Processing, Software Engineering, Data Analysis, Data Structures & Algorithms

TECHNICAL SKILLS

Languages: C/C++, C#, Java, Python, JavaScript/Typescript, Swift, SQL, R, Haskell, Scheme, Racket, HTML/CSS
Frameworks & Libraries: React, Numpy, Pandas, PyTorch, TensorFlow, OpenCV, Vue, Node.js, Vapor, scikit-learn, HuggingFace, Springboot, Postgres, Flask, FastAPI
Developer Tools: Linux, Git, AWS Services, Docker, Kubernetes, Dokku, Webpack, Node.JS, VMware, NGINX

EXPERIENCE

Software Development Engineer Intern — June 2024 - Sept 2024
Amazon Web Services — *Seattle, WA*
- Developed and maintained pricing & contract-generation app used by internal AWS logistics teams worldwide, improving system reliability and reducing human errors in contract creation.
- Redesigned and optimized internal backend systems in Java and Springboot, improving readability and performance
- Collaborated with a cross-functional team to ensure a cohesive, intuitive app interface, enhancing the user experience.

Software Development Engineer Intern — June 2023 – Sept 2023
Amazon Web Services — *Seattle, WA*
- Built AI-powered chatbot, using React components to enhance usability, thus improving user onboarding & reducing support requests by 15%.
- Integrated machine learning functionality using Hugging Face models, NumPy, Pandas, and AWS services such as SageMaker, Kendra, and Lex.
- Integrated AWS compute and data services (Lambda, EC2, DynamoDB, S3, EBS) to enable scalable backend systems.
- Implemented AWS monitoring services (CloudFront, CloudFormation, and CloudWatch) to improve deployment reliability, and operational visibility.

Data Structures Tutor — Jan 2022 – Jun 2022
RPI - Advising & Learning Assistance Center — *Troy, NY*
- Tutored students in data structures, algorithms, and object-oriented programming, contributing to a 30% average increase in test scores.
- Provided personalized mentorship to students developing personal projects, fostering hands-on learning.

PROJECTS

The Polytechnic Newspaper | *Technology Director* — Aug 2022 – May 2023
- Managed a VMware hypervisor hosting 10+ services, including a Django/Wagtail site, security, & backups used by 1K+ monthly readers.
- Automated deployments across multiple VM instances using Docker & Dokku, reducing downtime by 40%.
- Collaborated with the newspaper's editorial staff and the university's server staff to implement stakeholder requested features & changes.

Rensselaer Shuttle Tracker | *Backend Server Developer* — Aug 2022 – May 2023
- Maintained and improved a Swift shuttle-tracking app, decreasing database lookup time and optimizing backend query performance.
- Aggregated user activity into a PostgreSQL database, generating actionable insights that led to a 15% increase in shuttle usage.
- Contributed within a 15-member engineering team through disciplined Git workflows, code reviews, and CI/CD pipelines to maintain deployment reliability.