# **IBRAHIM MOHAMED**

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### EXPERIENCE

#### New Lantern

 $Software \ Engineer$ 

• Leading the evolution of New Lantern's imaging viewer.

## **Radical Imaging**

Lead Software Engineer

- Leading the team of engineers behind the flexible SaaS DICOM viewer FlexView.
- Engineered a flexible SaaS DICOM viewer using NestJS and NextJS. This cloud-based viewer effortlessly integrates with diverse workflows, maintaining its core functionality while providing adaptability.
- Developed software solutions to tackle challenges in medical imaging projects, primarily focusing on web development, cloud, and AI.
- Addressed and rectified critical security vulnerabilities within the AWS infrastructure, leading to substantial improvements in security and system integrity.
- Integrated AWS Marketplace into our SaaS offerings, resulting in a surge in customer acquisition.
- Established validation methods for existing clinical tools in the viewer, streamlining the FDA application process and ensuring compliance with regulatory standards.
- Implemented comprehensive automated testing strategies, leveraging frameworks such as Jest, Cypress, and Playwright, which increased code reliability and reduced debugging time.
- Engineered multiple integrations for our SaaS DICOM viewer, notably with EPIC EHR, NVIDIA's MONAI for AI-enhanced medical imaging, and major cloud services, enhancing interoperability and utility in healthcare.
- Core maintainer of Cornerstone3D (https://www.cornerstonejs.org/) and Open Health Imaging Foundation OHIF (https://ohif.org/).
- Enhanced on-premise deployment and authentication for the OHIF viewer by integrating KeyCloak, oauth-2proxy, and nginx, resulting in a seamless and secure deployment process.

# Jewish General Hospital

 $Software\ Engineer$ 

- Deployed and configured ML models on AWS, using EC2 accelerated compute instances and Sagemaker.
- Prepared ML models for inference using FastAPI, Nginx, and AWS Load Balancer.
- Built a user authentication system using AWS Cognito and FastAPI to verify user JWT tokens.
- Engineered several architectural diagrams and led planning of app development and infrastructure design.
- Programmed a web-based DICOM viewer with extreme performance by utilizing Vue3 and CornerstoneJS's robust accelerated image display and multi-threaded image decoding.

## Grafana Labs

Software Engineer

- Designed and implemented an admin page for managing feature toggles, allowing users to toggle features independently, enhancing user autonomy, and reducing support load.
- Contributed to significantly reducing user reliance on support by facilitating direct visibility into active feature toggles on their Grafana instance.
- Authored comprehensive design documents detailing the new feature's functionality, architecture, and user flow.

## TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Java, HTML, CSS, SQL, C++ Frameworks, Cloud and Databases: Django, AWS, Azure, GCP, React, Node, Vue, DynamoDB, REST, Docker, FastAPI, NestJS, NextJS, Cypress, PlayWright, Jest, Percy, Pytorch

#### Education

# Memorial University of Newfoundland

Bachelor of Science in Computer Science

Certificates & Awards

San Francisco, CA March 2025 – Present

Boston, MA June 2023 – March 2025

New York, NY

Montreal, QC

April 2022 - June 2023

Jan 2022 – April 2022

St. John's, NL Sep. 2020 – Apr. 2024