

# Kaysarul Anas

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github.com/anaskaysar

## Objectives

Entry-level Software Developer skilled in JavaScript, React, and Python with hands-on projects in cryptography, machine learning, and cloud applications. Passionate about secure and scalable solutions and eager to contribute to innovative tech teams.

## Technical Skills

Programming Languages	JavaScript (ES6+), Python, SQL (MySQL), NoSQL (MongoDB)
Frameworks & Libraries	React, React Native Node.js, Express.js, Next.js, Flask
ML/AI Tools	TensorFlow, OpenCV, YOLO (Ultralytics)
Cloud & DevOps	Google Cloud Platform (GCP), Docker, Firebase
Developer Tools	Git, GitHub, Prisma (ORM), VS Code, Postman, Jupyter Notebook
Other Tools	UI/UX (Figma), LaTeX, Microsoft Excel, PowerPoint

## Training & Certifications

- **Complete Web Development Course** — Programming Hero (Batch 4) Covered HTML, CSS, JavaScript, and React. Completed 3 projects in React and ranked among the top 15% of the class.
- **The Complete JavaScript Course 2025: From Zero to Expert!** — Udemy (in progress) Comprehensive training on modern JavaScript (ES6+), DOM manipulation, asynchronous programming, and real-world projects.

## Projects

### ElcryptIQ - Conveys Intelligence and Insight into Encryption github.com/EncryptIQ

- ElcryptIQ is an interactive web application designed to educate users on cryptographic algorithms, specifically AES and RSA.
- Users can compare algorithm characteristics, performance metrics, and security features through an intuitive interface.
- **Features:**
  - **Algorithm Comparison:** Detailed insights into AES and RSA, highlighting their strengths, weaknesses, and use cases.
  - **Interactive Interface:** Engaging UI with real-time encryption metrics and examples.
  - **Educational Content:** Simplified explanations of cryptographic principles for easy understanding.
  - **Responsive Design:** Optimized for seamless use across various devices.
- **Tools Used:** React, Tailwind CSS, Node.js.

### Real-time Weather Data Analysis iOS App in Serverless Computing Environments github.com/Real-Weatherapp

- A native iOS application designed to fetch, analyze, and display real-time weather data, using serverless computing for efficiency.
- Built to address mobile platform challenges such as resource limitations and network constraints, ensuring seamless access to weather insights.
- **Features:**
  - **Real-time Weather Updates:** Fetches and processes live weather data for accurate forecasts.
  - **Intelligent Analysis:** Provides meaningful information for travel planning, outdoor activities, and emergency preparedness.
  - **Optimized Performance:** Utilizes **Google Cloud Serverless Functions** to handle API requests efficiently.

- **Modern UI/UX:** Built with React Native and Tailwind CSS for a sleek and responsive interface.
  - **Technology Stack:** JavaScript, React Native (Expo CLI), Tailwind CSS, React Native Navigation, Hero Icons, Google Cloud Functions, WeatherAPI.

MalariAI – Automated Malaria Cell Segmentation from Blood Smear Images

[github.com/MalariaAI](https://github.com/MalariaAI)

- MalariaAI is a deep learning-based project designed to automate the detection and segmentation of malaria-infected cells from microscopic blood smear images.
  - The system addresses the challenges of manual microscopy by improving diagnostic speed, accuracy, and scalability in low-resource healthcare settings.
  - **Features:**

- **Image Pre-processing:** Applied normalization, contrast enhancement, and noise reduction to improve image quality.
  - **Segmentation Pipeline:** Implemented Mask R-CNN for accurate parasite segmentation in blood smear slides.
  - **Performance Evaluation:** Measured accuracy, precision, recall, and IoU to benchmark effectiveness.
  - **Automation Support:** Designed for potential integration into scalable diagnostic tools.

- **Tools Used:** Python, TensorFlow/Keras, OpenCV, NumPy, Pandas, Jupyter Notebook.

## Education

**M.Sc. in Computational Sciences** — Laurentian University, Sudbury, Ontario, Canada

2023 – 2025

**Relevant Courseworks:** Ethical Hacking, Applied Cryptography, AI/ML in Cyber-security

Machine Learning/Deep Learning, Autonomous Mobile Robotics, Image Processing, and Computer Vision.

B.Sc. in Computer Science and Engineering (CSE) — North South University, Bangladesh

2018 – 2022

## Publications

# Accurate Prediction of Pulmonary Fibrosis Progression Using EfficientNet and Quantile Regression

Sept 2023

*Co-author* — Published in IEEE TENSYMP 2023

DOI: 10.1109/TENSYMP55890.2023.10223673

#### Awards and Achievements

### **Mabel Jean and Bob Lye Memorial Award, Laurentian University**

2024-2025 Academic Year

- Recognized for exceptional academic excellence with a prestigious award valued at \$2,000.

## **University Involvement**

## IU Mine and Rescue Club

2023-2025

- Gained hands-on experience in safety protocols, emergency response, teamwork, and crisis management, Volunteer Works