

# Hoang Huynh Hai

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📍 Khu phố Tân Hòa, Dĩ An, Bình Dương

## OBJECTIVE

As a detail-oriented and enthusiastic IT student, I am seeking an internship opportunity that allows me to apply my academic knowledge, expand my technical competencies, and gain valuable experience in a dynamic and professional environment.

## EDUCATION

University of Information Technology – Vietnam National University (UIT – VNUHCM)	September 2022 - Present
Information technology	
GPA: 3.33/4 (current)	

## CERTIFICATIONS

TOEIC Listening & Reading – Score: 705	August 2024
TOEIC Speaking & Writing – Score: 220	January 2025

## SKILLS

Languages	C/C++, C#, Java, JavaScript, Python.
Framework:	NextJS, ReactJS, TailwindCSS, ExpressJS.
Tools & Software:	Git, AWS, Docker, Kubernetes, Jenkins, GitHub Actions, Terraform, ArgoCD.
Others	Android SDK, Frameworks TensorFlow, Monitoring Tools (Prometheus + Grafana).

## HONORS & AWARDS

Recognized for academic excellence for five consecutive semesters during undergraduate studies.	Jan 2025
Ranked first in the Modern IoT Programming course for outstanding project performance.	Jun 2025
Ranked first in Android application project in the Android Development course.	Jan 2025

## PROJECTS

E-Comercial Microservices Platform with CI/CD pipeline.	March 2025 - June 2025
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**Technologies:** Next.js, Express.js, MongoDB, AWS EKS, Jenkins, Terraform, ArgoCD, Prometheus, Grafana, DockerHub, SonarQube, Snyk, Trivy, HashiCorp Vault, Redpanda.

**Description:**

An ongoing e-commerce platform built with a microservices architecture, designed for scalability, security, and DevOps best practices.

**Features:**

- **Frontend:** Built with Next.js for high-performance SSR and SEO optimization.
- **Backend:** Microservices implemented with Express.js and connected to MongoDB.
- **CI/CD Pipeline:**

- **Pipeline 1:** Infrastructure provisioning using Terraform on a Jenkins server hosted on AWS EC2. Automatically deploys services to AWS EKS and syncs with ArgoCD.
  - **Pipeline 2:** Automatically builds and pushes Docker images to DockerHub upon commit, scans for security vulnerabilities using SonarQube, Snyk, and Trivy, then syncs changes with ArgoCD for redeployment.
  - **Monitoring:** Integrated Prometheus and Grafana for real-time metrics and alerting.
  - **Secrets Management:** Transitioning to HashiCorp Vault for secure environment variable management.
  - **Event-Driven Architecture:** Currently integrating Redpanda as a high-performance streaming platform.
  - **AI Integration:** Embedded an AI-powered chatbot on the landing page and integrated a recommendation model to enhance user interaction and personalization.
- GitHub:** <https://github.com/haihhdev/ballandbeer>
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## AI-Integrated IoT Monitoring & Control System

April 2025 - June 2025

**Technologies:** React.js, Python (Flask), Docker, AWS EKS, Terraform, GitHub Actions, ArgoCD, Prometheus & Grafana, SonarQube, Snyk  
**Description:**

Developed and deployed a full-stack IoT system with a real-time monitoring dashboard and intelligent control features.

**Features:**

- Built a responsive dashboard using React.js to visualize sensor data (e.g., temperature, humidity) and control IoT devices.
- Implemented a Flask-based backend with integrated AI modules: a chatbot for natural language interaction and a facial recognition system using OpenCV.
- Containerized the entire application with Docker, provisioned infrastructure using Terraform, and deployed on AWS EKS with GitOps automation via ArgoCD

**GitHub:** <https://github.com/haihhdev/IoTweb-devops>

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## Mobile Pothole Detection & Navigation Assistant

October 2024 - December 2024

**Technologies:** Java, Mapbox SDK, Firebase (Auth + Realtime Database)

**Description:**

A mobile application designed to detect and report potholes using sensors and geolocation. Developed as a road-safety solution that crowdsources road condition data from users.

**Features:**

- **Pothole Detection:** Uses smartphone sensors to detect impact when attached to the front of a vehicle.
- **Map Integration:** Built with Mapbox to show pothole locations and offer turn-by-turn navigation with route mode options (motorbike, car, pedestrian).
- **User Reporting:** Allows users to confirm pothole detections and report them; marked potholes are visible to all users on the map.
- **Authentication:** Firebase Authentication for secure user login.
- **Data Storage:**
  - Firebase Realtime Database to store live pothole status and metadata.
  - Firestore for storing pothole-related images.
- **Dashboard:** Displays statistics including total reported potholes and their severity levels.

**GitHub:** <https://github.com/haidonglethqb/Smart-Navigation-Assistant-for-Real-Time-Obstacle-Detectionand-Road-Surface-Analysis>

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## OpenAI Chatbot UI Deployment in EKS with Github Actions and Terraform

March 2025 - May 2025

**Technologies:** React.js, AWS EKS, Terraform, GitHub Actions, Docker, Kubernetes (Helm), ArgoCD, Prometheus & Grafana,

**Description:**

Developed and deployed an AI chatbot UI using React.js, integrated with Firebase for user authentication and data storage. Designed and automated a full DevSecOps pipeline from scratch:

- **Infrastructure (IaC):** Used Terraform to provision and manage AWS EKS clusters.
- **CI/CD:** Implemented GitHub Actions for automated building, testing, and Docker image deployment.
- **Deployment (GitOps):** Used ArgoCD to manage application deployment and synchronization on Kubernetes.
- **Key Features:** Google sign-in, chat history synchronization, conversation management and voice-to-text functionality

**GitHub:** <https://github.com/haidonglethqb/my-chatbot-repo>

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