

# Saud Makeen

## Backend Engineer • Systems Strategist

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## PROFESSIONAL SUMMARY

Backend engineer at Gathern, building scalable APIs, internal tools, and backend systems using Laravel, Yii2, and Docker. I have a degree in Computer Science. For my graduation project, I built a flood prediction system using Python, machine learning, and real-time IoT data. During my internship at Beae, I worked on backend systems using PHP and SQL and built mobile apps with React Native. Driven by clean architecture, reliable code, and building systems that last. Continuously exploring AI and cloud technologies.

## EDUCATION

### Bachelor's degree in Computer science

King Faisal University

Sep 2017 - Oct 2024

Al Ahsa, Hofuf

### User Experience and Interface Design

Tuwaq Academy, Boot Camp

Aug 2024 - Oct 2024

Remote

## EXPERIENCE

### Backend Engineer

Gathern

Jan 2025 - Present

Onsite

Building scalable APIs and backend systems

Maintained and enhanced hybrid Laravel/Yii2 architecture. Developed and maintained RESTful APIs. Optimized database performance through strategic query improvements and indexing. Implemented Docker containerization to streamline development workflows. Refactored legacy codebase to improve maintainability and performance. Created internal tools and automation scripts to enhance productivity.

**Technical Skills Used:** Laravel, Yii2, PHP, MySQL, MongoDB, Docker

## Software Development Intern

Beaee

Jun 2024 - Sep 2024

Onsite

Developed cross-platform mobile applications using React Native. Designed and implemented robust REST API endpoints. Collaborated with design team using Figma for seamless UI/UX implementation. Designed optimized database schemas and improved query performance. Implemented responsive web designs using Bootstrap framework. Integrated mobile applications with backend services.

**Technical Skills Used:** PHP, SQL, React Native, API Development, Figma, Bootstrap

## Computer Science Student

King Faisal University

Sep 2018 - Jun 2024

Al-Ahsa, Saudi Arabia

Graduation Project: AI Flood Prediction System

Integrated cost-effective IoT sensor solutions for real-time monitoring. Trained and optimized machine learning models for predictive analytics. Built real-time data processing pipelines for immediate insights. Programmed Arduino microcontrollers for IoT device functionality. Designed early warning systems with automated alert mechanisms. Performed data analysis and created visualizations using Python.

**Technical Skills Used:** Python, Machine Learning, IoT, Arduino

## PROJECTS

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### Gathern Backend Systems

Current Role Project | In Production

Jan 2025 - Present

Working on hybrid Laravel and Yii2 codebase, building backend APIs, internal tools, and integrating with external systems. Writing testable code and maintaining scalable architecture.

Delivered restful apis with comprehensive testing and documentation. Implemented query performance improvements and indexing strategies. Implemented modernizing yii2 codebase while maintaining compatibility. Implemented containerized development environments and deployment.

**Technologies Used:** Laravel, Yii2, MySQL, MongoDB, Docker, PHP, Redis, Git

### AI Flood Prediction System

Graduation Project | Completed

2024

Low-cost, real-time flood prediction system using AI and sensors. Built for my graduation project, it provides early flood alerts using ultrasonic sensors and machine learning models.

Deployed ultrasonic sensors for water level detection. Trained machine learning models for flood forecasting. Connected arduino-based sensor network. Constructed real-time data processing and analysis.

**Technologies Used:** Python, Machine Learning, Arduino, IoT, TensorFlow, Pandas, NumPy, Scikit-learn

## SKILLS

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### Backend Development:

Laravel/PHP, Yii2 Framework, Python/ML, Node.js

### DevOps & Infrastructure:

Docker, Kubernetes, Git/Version Control

### Database & Mobile:

MySQL, MongoDB, React Native

### Development Tools:

VSCode, Postman, Git, Figma, Docker Compose, Composer, NPM, Yarn

### Testing Tools:

PHPUnit, Jest, API Testing, Unit Testing, Integration Testing

### Soft Skills:

Team Collaboration, Self-Driven, Problem Solving, Code Review, Mentoring, Agile/Scrum, Technical Writing, System Design

## LANGUAGES

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### ARABIC

Native Speaker

### English

Advanced Level C1

## CERTIFICATIONS

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### Career Ready Badge

Misk Career Essentials Program

Aug 2024 - Nov 2024

Remote

Credential ID 118289066

### User Experience and Interface Design

Tuwaiq Academy | ?????????? ?????

Aug 2024 - Oct 2024

Remote

Credential ID J2WN7dX

## **Huawei Certified ICT Associate (5G)**

**HCIA-5G V2.0 Course**

**Mar 2024 - May 2024**

Credential ID EBG20240525000226

## **Android Development with Kotlin**

**Google Developer**

**Mar 2023 - Jun 2023**

Remote

## **Osha Safety At Work**

**30 NASP**

**Jun 2025 - Jul 2025**

High Industrial Technical Training Institute

Credential ID 22677

## **INTERESTS**

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Machine Learning, Cloud Computing, System Architecture, API Development, DevOps, Artificial Intelligence