

Presented by QuetraTech

INTERNSHIP BOOK 2024



CONTENTS

Introduction

- 04 About QuetraTech
- 04 Overview of our technologies

How to apply

- 06 Steps to follow

List of projects

IOT projects

- 08 Smart measuring tape
- 09 Smart touch interface

Web projects

- 10 Dental management system
- 11 Project management system
- 12 Crowdfunding platform
- 13 Connected POS
- 14 Marketplace platform
- 15 Visual merch editor
- 16 E-learning web application

Contact

- 17 Contact info & social media

We trust that this internship book will be a help for you about QuetraTech internship opportunities. If you have any questions regarding the projects, we kindly encourage you to schedule a visit as we receive a high volume of emails. Thank you for your understanding.

1.

Intro- duction

QuetraTech is a full-stack design and development team specializing in crafting web applications, eCommerce websites, mobile apps, and IoT solutions, along with offering comprehensive branding services. We're passionate about what we do, and we're fully invested in the success of every project we take on.

10+

Team Members

We bring a diverse expertise and creativity to each project. Collaborative synergy among our specialists ensures innovative solutions tailored to our clients' needs.

20+

Completed Projects

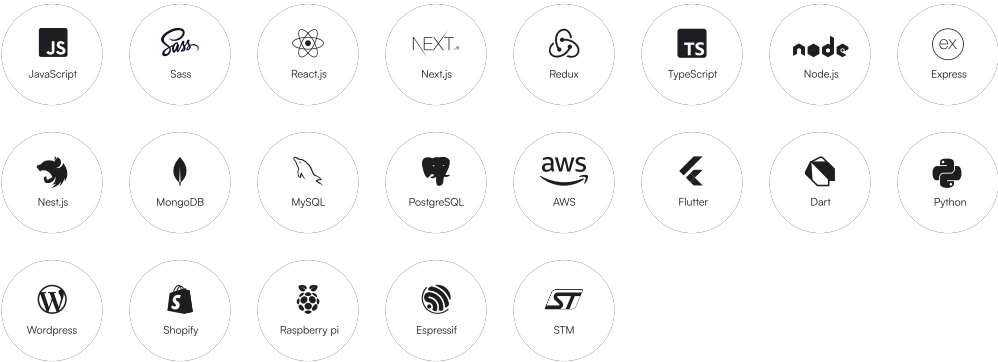
Unwavering commitment to excellence. Our relentless pursuit of quality work consistently exceeds expectations, while delivering innovative and top-tier solutions.

3+

Years of Experience

We demonstrate a proven track record of excellence and adaptability. Our experience enables us to anticipate trends and swiftly incorporate cutting-edge technology into our solutions.

Technologies we use:



2.

How to apply

Steps to follow:

1.

Visit Internship Portal

Start by navigating to:

quetrattech.com/internship

Here, you'll find detailed information about available internship opportunities, requirements and the application process.

2.

Submit Your Application

Complete the application form by providing your details and indicating your preferred areas of interest. You'll have the opportunity to choose up to two subjects that align with your skills and aspirations. Craft a compelling cover letter and ensure your resume showcases your relevant experiences and achievements.

3.

Interview and Assessment

Upon reviewing applications, selected candidates will be invited to an interview and assessment phase. This phase may include technical evaluations, problem-solving tasks, or situational assessments to gauge your skills, competencies, and alignment with QuetraTech's values and goals.

4.

Selection and Validation

After the interview and assessment phase, successful candidates will undergo a selection process. This involves a thorough evaluation based on performance and qualifications. Selected interns will receive an offer letter detailing the terms and conditions of the internship.

3.

List of projects

Smart measuring tape

IoT solution

This project involves creating an object that allows for the measurement and monitoring of various metrics in a networked manner. It encompasses tracking and analyzing data related to measurable parameters.

Required Technologies

- Frontend: C language, Python, Electron.js
- Backend: Node.js, Express, MongoDB/MySQL/PostgreSQL
- IoT Integration: Arduino, Espressif
- Additional: WebSocket for real-time data transmission, Google Cloud IoT

Features & Integrations:

- **Sensor Integration:** Connect and manage various sensors for data collection.
- **Real-time Data Analysis:** Tools for real-time analysis of collected data.
- **Alerts and Notifications:** Notification system for anomalies or threshold breaches.
- **Data Visualization:** Visual representation of collected data for better insights.

Smart touch interface

Developing a multifunctional and advanced smart object integrating a tracker and smart pen technology, along with an educational quiz creator tool. The primary objective is to create a device capable of transforming any whiteboard or wall surface into an interactive platform, specifically designed for educational purposes. It utilizes various projector types, enabling educators to create interactive quizzes and engaging learning experiences.

Required Technologies

- Frontend: Html, Css, React (Preferred)
- Backend: Node.js, C language, Python
- IoT Integration: Arduino, Espressif
- Additional: Networking Protocols Knowledge (TCP/IP, HTTP, MQTT, etc.)

Features & Integrations:

1. **Tracker and Smart Pen Integration:** Merges tracking technology with a smart pen for precise interaction on projected surfaces.
2. **Educational Quiz Creator Tool:** Empowers educators to craft customized interactive quizzes, enhancing student engagement and facilitating innovative teaching methods.
3. **Compatibility and Calibration:** Develops a driver and calibration program ensuring compatibility with diverse projectors for optimal functionality.
4. **Interactive Platform:** Establishes a platform for accessing and sharing a variety of interactive educational applications and quizzes.

Dental management system

Web development

The Dental management system is an intuitive desktop application designed specifically for dentists to efficiently organize patient files, manage appointments, and accurately track financial transactions. This comprehensive software streamlines administrative tasks, allowing dentists to effortlessly maintain patient records, schedule appointments, and meticulously monitor payments, ensuring a smooth and organized practice management experience.

Required Technologies

- Frontend: Electron.js ,React.js, Javascript, Redux
- Backend: Node.js, Electron APIs, SQLite, IndexedDB
- Additional: Electron Packager/Builder, Electron Forge, Electron Store or Local Storage

Features & Integrations:

- **Patient File Management:** Implement functionalities to manage and organize patient records efficiently.
- **Appointment Scheduling:** Build a system to schedule and manage appointments effectively.
- **Financial Transaction Tracking:** Develop tools to track and manage financial transactions related to patients' treatments and payments.
- **Data Encryption and Security:** Ensure patient data security by implementing encryption methods and secure storage practices.
- **Responsive UI Design:** Utilize ReactJS to create an intuitive and user-friendly interface suitable for dentists' workflow.

Project management system

Web development

This project involves developing a comprehensive system for planning, organizing, and tracking tasks and milestones within a project. It typically includes tools for creating timelines, assigning tasks, managing resources and documents, and monitoring progress to ensure efficient project management.

Required Technologies

- Frontend: React.js, TypeScript, Redux
- Backend: Node.js, Express, MongoDB/MySQL/PostgreSQL
- Additional: WebSocket for real-time updates, Recharts for data visualization

Features & Integrations:

- **Task Management:** Create, assign, and track tasks with details, deadlines, and dependencies.
- **Milestone Tracking:** Monitor project progress by setting and managing milestones.
- **Collaboration Tools:** Integration with communication tools like Slack and Google meet for team collaboration.
- **Calendar Integration:** Sync project timelines with Google Calendar for efficient scheduling.

Crowdfunding platform

Web development

A crowdfunding platform allows individuals or organizations to raise funds for projects, products, or causes by collecting contributions from a large number of people, typically via the internet. It provides a space where creators can showcase their ideas and receive financial support from interested backers.

Required Technologies

- Frontend: React.js, TypeScript, Redux
- Backend: Node.js, Express, MongoDB/MySQL/PostgreSQL
- Payment Processing: Paymee API
- Additional: AWS for scalable infrastructure, JWT for authentication

Features & Integrations:

- **Project Campaign Creation:** Allow users to create detailed campaigns with multimedia content.
- **Payment Gateway Integration:** Integrate with payment gateways (Paymee) for secure contributions.
- **Social Media Integration:** Enable users to share campaigns on social media platforms.
- **Backer Management:** Tools for managing backers and rewards distribution.

Connected POS

Web development

This project involves creating an online or cloud-based system for processing transactions, managing sales, and handling payments. It enables businesses to conduct sales, manage inventory, and generate reports, all through a web interface.

Required Technologies

- Frontend: React.js, TypeScript, Redux
- Backend: Node.js, Express, MongoDB/MySQL/PostgreSQL
- Additional: WebSocket for real-time updates, Barcode/QR code scanning integration

Features & Integrations:

- **Point of Sale (POS) Interface:** User-friendly interface for managing transactions.
- **Inventory Management:** Integration with inventory systems to track stock levels.
- **Sales Analytics:** Tools for analyzing sales data and generating reports.

Marketplace platform

Web development

A marketplace platform serves as an online venue where multiple vendors can list and sell their products. It facilitates transactions between buyers and sellers and it includes features such as product listings, payment processing, and seller storefronts.

Required Technologies

- Frontend: React.js, TypeScript, Redux
- Backend: Node.js, Express, MongoDB/MySQL/PostgreSQL
- Payment Processing: Paymee API
- Additional: ElasticSearch for robust search functionality, AWS S3 for storage

Features & Integrations:

- **Vendor Storefronts:** Allow vendors to create personalized stores showcasing their products/services.
- **Search and Filter Options:** Enable users to search and filter products based on categories, price, etc.
- **Secure Transactions:** Implement secure payment gateways and transaction processing.
- **Reviews and Ratings:** Include a system for users to leave feedback and ratings for products/services.

Visual merch editor

Web development

This project focuses on developing an online tool that assists individuals in creating visually appealing and effective merchandising displays. It includes features for designing, arranging, and customizing product layouts.

Required Technologies

- Frontend: React.js, TypeScript, Redux
- Backend: Node.js, Express, MongoDB/MySQL/ PostgreSQL
- Additional: HTML5 Canvas or SVG for graphical manipulation, AWS for image storage and CDN

Features & Integrations:

- **Drag-and-Drop Interface:** Intuitive tools for arranging and designing visual merchandise layouts.
- **Image Editing Tools:** Integration with image editing APIs for customization.
- **Template Libraries:** Access to pre-designed templates for quick merchandising creation.
- **Export and Sharing:** Capability to export designs and share them across different platforms.

E-learning web application

It involves developing a platform that enables users to generate educational materials, such as courses, lessons, quizzes, and interactive content, for online learning purposes. It allows educators or content creators to design and deliver engaging educational content.

Required Technologies

- Frontend: React.js, TypeScript, Redux
- Backend: Node.js, Express, MongoDB/MySQL/PostgreSQL
- Additional: SCORM or xAPI integration for interoperability, AWS S3 for content storage

Features & Integrations:

- **Course Creation Tools:** Tools for designing and structuring courses with multimedia content.
- **Assessment Modules:** Integration for creating quizzes, assignments, and assessments.

Contact info

Office:

B11 Mahdia business incubator,
5111 Rue El Mourouj, Hiboun

Email:

Contact@quetrattech.com

Website:

<https://quetrattech.com>

Social media:

[Facebook](#)

[Instagram](#)

[LinkedIn](#)

[Pinterest](#)

[Dribbble](#)

[Behance](#)