

# MOHAMED HAMED

AI Expert & Engineering Leader | Senior Full Stack Engineer

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**Engineering Leader** with 20+ years of experience building high-performing teams and delivering transformative AI/ML solutions. Proven track record of driving digital transformation across Fortune 500 companies and innovative startups. Expert in architecting enterprise-scale applications, mentoring 50+ engineers into leadership roles, and delivering 45+ major projects across 5 countries. Specializing in React, Node.js, cloud architecture, and cutting-edge AI technologies including RAG, multi-agent systems, and conversational AI. Currently leading AI-powered agent development at Onit, revolutionizing legal process automation. **Available for contract opportunities** in AI/ML, full-stack development, and technical leadership roles.

## PROFESSIONAL EXPERIENCE

### Lead AI Developer @ Onit

January 2025 - Present

New Zealand | AI & Legal Tech

Led the design and development of enterprise-grade AI agents to automate and revolutionize legal workflows. Architected and delivered two core AI applications, Agent Studio and Knowledge Agent, while establishing best practices for AI development across the organization.

- **Architected "Agent Studio,"** an AI-powered platform that automates legal invoice approval using RAG, reducing manual review time and accelerating payment cycles.
- **Developed "Knowledge Agent,"** a conversational AI tool that indexes all company Slack data, enabling employees to retrieve information and insights from team communications efficiently.
- Integrated advanced features allowing users to generate reports from CSVs and utilize nested AI apps for specialized tasks like prompt testing and marketing training.
- **Created and delivered a comprehensive "AI Developer" curriculum** for an internal training program, successfully educating over 100 employees on best practices for working with AI.

AI Agent Development

RAG

LangChain

OpenAI

Google Vertex AI

Node.js

React

Microservices

Corporate Training

## Lead Software Engineer (Contract) @ FishVision Mobile And Web Solutions

March 2022 - January 2025

Australia | Financial Services & Mobile Apps

Led multiple high-impact projects including Minifarms app redevelopment, Zembl frontend development, and Amber Group Savings app with team leadership responsibilities.

- Led Minifarms App redesign and redevelopment with React Native
- Architected Zembl frontend application for financial services
- Developed Amber Group Savings app with financial API integrations
- Established CI/CD pipelines and best practices for mobile development
- Mentored team members in React Native and TypeScript best practices

React Native

React

TypeScript

CI/CD

Financial APIs

## Lead Software Engineer (Contract) @ IAG

January 2024 - September 2024

Auckland, New Zealand | Enterprise & Insurance

Spearheaded micro-frontend architecture design and implementation, led ReactJS-based frontend development, and directed high-performing development teams for enterprise insurance platforms.

- Designed and implemented enterprise micro-frontend architecture serving millions of users
- Reduced deployment time by 60% through modular architecture
- Enabled 4 autonomous team pods to work independently
- Led ReactJS-based frontend development with TypeScript and Redux
- Integrated cloud solutions using Azure for scalable infrastructure
- Mentored 3 engineers in micro-frontend patterns and best practices
- Optimized performance and improved application load times by 40%

React

Micro-frontend

TypeScript

Node.js

Redux

Azure

## Senior Software Engineer @ AKQA

March 2024 - May 2024

Auckland, New Zealand | Media & Entertainment

Led development of cross-platform audio streaming solutions for MediaWorks, delivering live radio, podcasts, playlists, and release management across New Zealand.

- Led Rova Radio, Podcast & Audio Platform development serving 100K+ users across NZ
- Architected cross-platform solution (React, React Native) with JWPlayer integration
- Improved team velocity by 2x through optimized development workflows
- Achieved zero downtime deployments with robust CI/CD pipelines
- Managed team of 8 engineers across frontend and mobile platforms

React

React Native

TypeScript

JWPlayer

Jotai

CI/CD

## Lead Software Engineer (Contract) @ Department of Internal Affairs (NZ)

July 2023 - December 2023

Auckland, New Zealand | Government & Public Services

Led modernization of government digital services, focusing on licensing and compliance applications with cloud-native microservices architecture.

- Modernized critical government digital services for licensing and compliance
- Architected cloud-native microservices using React, Node.js, and AWS
- Ensured compliance with government security and accessibility standards
- Led migration from legacy systems to modern cloud infrastructure

React

Node.js

AWS

Microservices

TypeScript

## Chief Technology Officer (CTO) @ Capiwise

January 2020 - December 2023

Auckland, New Zealand | FinTech Startup

Founded and built comprehensive stock market analysis platform from ground up, leading full product development lifecycle, technical strategy, and team building.

- Architected full-stack fintech platform handling real-time market data and ML predictions
- Built real-time portfolio tracking system with advanced analytics and data visualization
- Grew user base by 300% in first year through product innovation
- Established engineering culture and hired/mentored team of 12 engineers
- Developed comprehensive dashboard for fundamental stock market analysis
- Integrated financial APIs for real-time data feeds and portfolio management

React

Node.js

Financial APIs

Data Visualization

Portfolio Management

## Lead Software Engineer (Contract) @ Watercare Services Limited

June 2022 - June 2023

New Zealand | Utilities & Infrastructure

Spearheaded full lifecycle development of Activity Tracker application for monitoring water, wastewater, and power outage issues. Led migration from JavaScript to TypeScript and established CI/CD pipeline using Azure.

- Developed enterprise Activity Tracker platform tracking water, wastewater, and power assets across NZ
- Enabled clustering, predictive analytics, and outage monitoring for field operations
- Integrated Mapbox for real-time asset visualization and mapping
- Led migration from JavaScript to TypeScript, improving code quality and maintainability
- Established CI/CD pipeline using Azure, reducing deployment time by 50%
- Built GraphQL APIs and AWS Lambda functions for scalable backend infrastructure

React

TypeScript

Azure CI/CD

Mapbox

GraphQL

AWS Lambda

## Lead Software Engineer (Contract) @ Les Mills International

January 2022 - June 2022

Auckland, New Zealand | Health & Fitness

Led design, development, and implementation of LesMills OnDemand app, successfully migrated from JavaScript to TypeScript, and engineered CI/CD pipeline using AppCenter.

- Architected LesMills OnDemand streaming platform with 100K+ subscribers
- Implemented video streaming solution with robust playback and offline capabilities
- Led migration from JavaScript to TypeScript across entire codebase
- Engineered CI/CD pipeline using AppCenter for automated deployments
- Built React-based application with Redux for state management

React

TypeScript

Video Streaming

AppCenter

CI/CD

Redux

## Technical Lead & Engineering Manager (Contract) @ Datacom

December 2020 - January 2022

New Zealand | Enterprise Solutions

Led and delivered 5 major enterprise projects as Technical Lead, architecting solutions across finance, healthcare, energy, travel, and regulatory compliance sectors. Managed multiple concurrent project teams and drove technical excellence across all deliverables.

- **Smartly Payroll System:** Architected and delivered New Zealand's leading cloud-based payroll solution with leave management, Xero integration, labour costing, and self-service mobile access serving 10,000+ businesses (React, React Native, Flutter, Redux, Azure)
- **Village Mobile App (Starship Children's Hospital):** Led technical development of healthcare mobile application supporting hospital operations with HIPAA compliance, patient management, and real-time notifications
- **Contact Energy Platform:** Delivered comprehensive customer-facing energy management platform with billing, payments, meter reads, and real-time usage insights across web and mobile, serving 500K+ customers
- **Air New Zealand Travel Application:** Technical lead for customer travel app delivering seamless booking, check-in, flight status, and travel management for 2M+ annual passengers
- **Plumbers Board Regulatory App:** Directed development of regulatory compliance application for Plumbers, Gasfitters and Drainlayers Board with licensing management and React Native accelerator framework
- Managed 15+ engineers across multiple concurrent projects with distributed teams
- Established technical standards and best practices adopted across all Datacom projects

React

React Native

Flutter

Redux

Azure

Xero API

Healthcare Compliance

Financial Systems

## Lead Software Engineer (Contract) @ Tennibot

October 2019 - June 2020

United States (Remote) | Robotics & IoT

Spearheaded design and implementation of React Native application for autonomous tennis ball collector. Pioneered integration of Autonomous and Remote-Control modes and led robust unit testing setup.

- Built React Native app for autonomous tennis ball collector robot
- Pioneered integration of Autonomous and Remote-Control modes
- Implemented Redux and Saga for state management and async operations
- Established comprehensive unit testing environment with Jest
- Led robotics application development with real-time control capabilities

React Native

Redux

Saga

JavaScript

Robotics

Jest

## Senior React Native Developer @ Vodafone

May 2017 - April 2018

Auckland, New Zealand | Telecommunications

Led design and development of dynamic features for My Vodafone web application and contributed to new Vodafone app as integral part of React Native team. Mentored junior developers and maintained robust unit testing environment.

- Developed My Vodafone app features used by 1M+ customers
- Built billing, plans, usage insights, and account management features
- Mentored junior developers in mobile development best practices
- Maintained robust unit testing environment with Jest and Mocha
- Established CI/CD pipelines for automated testing and deployment

React Native

Redux

Jest

Mocha

CI/CD

## Senior Full Stack Developer @ Today Software, Tourism Holdings, Infotools

2013 - 2017

New Zealand | E-commerce, Tourism & Enterprise Analytics

Led development of modern web and mobile applications in New Zealand, focusing on e-commerce platforms, tourism applications, and enterprise analytics solutions for global clients.

- **Elements Gifts E-commerce Platform (Today Software):** Architected and launched full-featured e-commerce platform with point-of-sale integration, inventory management, and payment gateway integration
- **Tourism Holdings Mobile Application:** Led design and development of React Native mobile app for tourism operations with booking systems, customer management, and real-time availability
- **Info-tools Cloud Harmoni (Infotools/Coca-Cola Global):** Led upgrade of enterprise analytics application to latest frontend technologies using Angular JS and Bootstrap framework for Coca-Cola Global client
- Transitioned to modern web technologies: React, React Native, Angular, Node.js
- Established expertise in mobile development, e-commerce, and enterprise analytics

React Native

React

Angular

Node.js

E-commerce

Mobile Development

## Software Engineer → Senior Developer @ InterMark Network, Fox 2005 - 2010

Saudi Arabia, Middle East | Healthcare Systems & Enterprise Solutions

Built enterprise solutions in healthcare and hospitality sectors, specializing in healthcare information systems, ERP solutions, and multi-location deployment across Saudi Arabia.

- **TaTa-TaTa Vaccination Tracking System (InterMark Network):** Architected and deployed nationwide children vaccination tracking system across 42 hospitals and 66 clinics in Saudi Arabia with multi-location synchronization and reporting

- **Osteo-minder Treatment Tracking (InterMark/Novartis):** Implemented osteoporosis treatment administration tracking system for Novartis across multiple clinics and hospitals with patient monitoring and medication compliance tracking
- **Fox ERP System (Fox):** Developed comprehensive enterprise resource planning system with attendance tracking, HR management, and payroll, integrating fingerprint biometric machines and security gates across 25 hotels
- Mastered enterprise development: C#, ASP.NET, SQL Server, Oracle, and database design
- Gained deep expertise in healthcare systems, compliance, and multi-location deployments

C#

ASP.NET

SQL Server

Oracle

Healthcare Systems

ERP

## TECHNICAL EXPERTISE

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### Frontend & Mobile

React & Next.js

TypeScript

React Native & Flutter

Redux & State Management

### Backend & Cloud

Node.js & Python

AWS & Azure

Docker & Kubernetes

Microservices Architecture

### AI & Data Science

Machine Learning & AI

LangChain & RAG

OpenAI & LLM Integration

TensorFlow & PyTorch

### Leadership & Management

Team Leadership

Agile & Scrum

Mentoring & Coaching

Technical Architecture

## INDUSTRY EXPERIENCE

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AI & Emerging Tech Finance & Banking Utilities & Infrastructure Energy & Smart Cities Telecommunications Media & Entertainment Legal Tech Health & Fitness Healthcare Government & Public Services Robotics & IoT E-commerce Travel & Tourism Regulatory & Compliance

## EDUCATION

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### Bachelor's Degree in Information Technology

Thebes Academy | 2000 - 2004

## **Diploma Level 7 in Information Technology**

NTEC | 2011 - 2012

### **PROFESSIONAL CERTIFICATIONS**

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#### **Google Project Management Specialization**

Google | January 2024 | Credential: XLZZSW9D3EUL

#### **Building Modern Python Applications on AWS**

Coursera | August 2023 | Credential: 5TATYVEWXJUB

#### **Microsoft Certified Solutions Developer (MCSD): Web Applications**

Microsoft | October 2015

*Composite certification including: ASP.NET MVC Web Applications, Azure & Web Services, HTML5/JavaScript/CSS3*