

HUSSEIN AL KHAYYAT

Software Engineer

+44 7846 006022 smsmkhaldon@gmail.com https://www.linkedin.com/in/husalk/
Dundee, Scotland, UK

SUMMARY

Software engineer and recent BSc (Hons) graduate with hands on experience developing backend microservices, GraphQL/REST APIs, PostgreSQL backed platforms and complex systems software. API validation, integration behaviour, defect reproduction, root-cause analysis and clear technical documentation with a testing-minded approach. Experience working with Playwright and Postman for browser and API testing. Skilled in programming languages such as Python, JavaScript/Typescript, Kotlin, C++.

EXPERIENCE

Software Engineer Intern

UniPin

09/2025 - 03/2026 Remote

- Developed and built a Kotlin/Spring Boot backend microservice in a distributed microservices architecture, focusing on reliable integration behaviour and clean service boundaries
- Developed GraphQL APIs using Netflix DGS for internal and external platform integrations, validating data flow, edge cases and database-backed behaviours across services
- Developed a secure signed-link generation system for merchant integrations, taking care of security-sensitive inputs and integration scenarios
- Used tooling like PostgreSQL, Liquibase, Docker and Kubernetes for schema changes, deployments, troubleshooting and environment-level issue isolation

Gameplay Programmer

Segritude Games

03/2025 - 09/2025 Remote

- Developed and maintained gameplay systems in C++ and Blueprints within Unreal Engine 5, validating feature behaviour through iterative builds and team review
- Reproduced, debugged, and fixed gameplay logic issues affecting stability, performance, and user-facing behaviour

Lead Programmer

Catloaf Studio

02/2024 - 02/2025 Dundee, UK

- Led development of gameplay systems for a commercial Steam release, coordinating technical direction and programming tasks within a small team
- Implemented turn-based combat, save/load systems, and core game logic with emphasis on correctness, maintainability, performance, and regression-safe changes

EDUCATION

BSc (Hons) Computer Game Applications Development

Abertay University, Dundee

09/2022 - 07/2025 Dundee

HND / HNC Game Development

Dundee & Angus College, Dundee

08/2019 - 07/2022 Dundee

ACADEMIC TRANSCRIPT AVAILABLE TO ATTACH WITH APPLICATION

SKILLS

Testing & QA

test case design	manual validation
API testing	integration testing
regression checks	defect reproduction
root-cause analysis	test documentation

Testing tools

Playwright	Postman
------------	---------

Programming

Python		JavaScript		TypeScript
Kotlin	C++	C	SQL	Bash

API & Backend

microservices	REST APIs	GraphQL
Spring Boot	Node.js	Express
Netflix DGS		

Data, Cloud & DevOps

PostgreSQL	Liquibase	Docker
Kubernetes	AWS ECS	AWS ECR
AWS RDS	AWS ALB	Terraform
GitHub Actions	Linux	GDB

Collaboration

technical documentation	
issue reproduction notes	code review
sprint-based remote teamwork	

PROJECTS

Legal Case Management Platform

React / Node.js / Express / PostgreSQL

Live demo: husalk.com/legal-case-management

- Built a full-stack case management platform for a prospective law firm client, covering clients, employees, legal cases, assigned tasks, documents, and case statuses
 - Implemented session authentication, role-based permissions, secure password hashing, search, pagination, file attachments, and PostgreSQL-backed workflows
-

PlayStation 1 Emulator

C++ / OpenGL

- Implemented a MIPS R3000A CPU interpreter, instruction decoding pipeline, memory subsystem, hardware timing, GPU rendering pipeline, BIOS/CD-ROM subsystems, and instruction-tracing debugging tools
 - Focused on accuracy, performance, low-level defect isolation, deterministic behaviour, and diagnostic tooling
-

Custom Operating System

C / C++ / Assembly

- Built a full x86 operating system from scratch with boot-loader, GDT/IDT setup, IRQ handling, scheduler, memory management, FAT16 loader, modular kernel architecture, and serial-output diagnostics
- Used low-level diagnostics to test, debug, and isolate system faults where standard tooling was unavailable