

Jakub Hýl

Full-Stack Software Engineer

 jakubhyl.dev

 Prague, CZ

 linkedin.com/in/hyl-jakub

 github.com/hylkuba

Summary

Full-Stack engineer building web applications with TypeScript, React, Node.js, and Firebase (Auth, Firestore, Hosting), including integrations via REST APIs. Production experience at Compelson (MOBILedit) shipping features in a large C++ codebase for mobile forensics. Strong in SQL, modeling, debugging, and working with real-world data formats.

Skills

Languages: C++, TypeScript, JavaScript, Java, Scala, Python

Frontend: React, HTML, CSS, Tailwind CSS

Backend: Node.js, REST APIs, Firebase (Auth, Firestore, Hosting), Spring Boot

Databases: SQL, PostgreSQL, Oracle

Build & Tools: npm, CMake, Gradle, Git, SVN, GitHub Actions (CI), Docker

Modeling: ERD, UML, BPMN, OntoUML

Frameworks: Qt

Mobile app artifacts: Realm DB, MMKV, Plist, SQLite, JSON, XML, CSV

Design: Figma, Davinci Resolve

Spoken: Czech/Slovak (native), English (C1), Spanish (B1), Korean (A2)

Experience

Compelson

Aug 2024 – Present

Junior Software Engineer | MOBILedit forensic software (mobiledit.com)

- Implemented 4 new parser modules shipped as customer-facing release enhancements for data extraction.
- Reverse-engineered iOS and Android app storage artifacts; documented filesystem structures, database schemas, and relationships to improve extraction correctness.
- Analyzed 50+ Android/iOS apps to identify storage patterns, edge cases, and data inconsistencies.
- Improved stability and developer productivity by fixing bugs, optimizing existing modules, and building internal tools to speed up debugging and iteration.
- Supported broad compatibility across multiple device models and diverse OEM ecosystems.

Independent projects / client work (remote)

Mar 2025 – Present

Independent Full-Stack Web Developer & UI/UX

- Delivered small-business websites end-to-end: requirements, UI prototype (Figma), implementation, deployment, and post-launch fixes.
- Built responsive front ends and deployed production sites; applied practical SEO and performance improvements.
- Used Firebase (Auth, Firestore, Hosting) for projects requiring authentication, data persistence, or simple admin workflows.

Selected Projects

Talk2Europe (T2E) | Education scheduling / matching app

talk2europe.org

- Co-developed backend (2-person team); designed Firestore data model (collections, relationships, query patterns).
- Implemented matchmaking and ranking algorithm in TypeScript on Firebase-backed data.
- Set up issue tracking and documentation standards.

Notion Templates | Notion Marketplace profile

notion.com/@jakubhyl

- Designed and published productivity templates focused on information architecture, usability, and clear workflows.

Unity Mobile Game Prototype (C#)

In progress

- Implemented core gameplay loop and UI; focused on shippable MVP scope and clean code structure with OOP design.

Education

Czech Technical University in Prague (Czechia)

2022 – Present

B.Sc. Software Engineering (Expected graduation 2026).

- Relevant coursework: Databases (SQL), Operating Systems, Computer Networks, Software Engineering, Data Structures & Algorithms, Data modelling and OOP designs, participation in software projects

University of Seoul (South Korea)

Spring 2024

- Relevant coursework: Compilers & Formal Languages, Big Data, Optical Electronics, Korean language

Universidad Politécnica de Madrid (Spain)

Fall 2023

- Relevant coursework: Security: SW, HW, Network; BioInformatics, Spanish language

Certificates

Cambridge C1 Advanced English

Jun 2022

Oracle Academy: Database Design

Nov 2023

Oracle Academy: Database Programming with SQL

Dec 2023