### SHAYAN HAGHIGHI

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Computer Science student with predicted 1st class honours (avg. 85%), with hands-on experience in backend engineering, machine learning, and cloud automation. Strong interest in automated and isolated testing.

#### **EDUCATION**

#### University of Birmingham - Computer Science BSc

(09/2022 - Present)

- Module average 85% (1st Class Honours)
- Key modules Object Oriented Programming (100%), AI (95%), Security and Networks (93%)

#### St. John the Baptist School

(09/2020 - 08/2022)

• A-Level Grades: A\* Maths, Further Maths, Physics

A Psychology

#### **WORK EXPERIENCE**

#### **Software Engineer - Mimecast**

(09/2024-2025)

- Enhanced service reliability by developing a custom Spring Boot proxy, improving test reliability to 98%
- Delivered technical presentations to 40+ engineers and QAs, introducing our new testing strategies
- Created and managed multiple CI/CD pipelines for automated testing in containerised environments using Jenkins and Docker
- Automated Cucumber test generation for peripheral service, increasing coverage from 33% to 100%

#### Teaching Assistant - University of Birmingham

(09/2025-present)

- Helped run lab sessions for over 500 students weekly for the Object Oriented Programming module
- Increased student satisfaction with the module by 12%

**Personal Tutor** (09/2023-2025)

- Tutored 4 students using tailored communication and teaching skills, adapting to students' diverse learning styles to distil complex ideas into understandable chunks
- Improved the students' predicted grades by 2 levels on average

#### **PROJECTS**

## Indoor Dog Tracker using Nest Cameras $\mathscr S$

- Built an end-to-end computer vision system using Google Cloud Pub/Sub and the Nest SDM API to stream and process 1000s real-time camera events daily for indoor dog tracking
- Trained and refined a custom YOLOv8 model, improving accuracy from 30% to 90%
- Integrated with Label Studio for easy labelling and automated model retraining with Jenkins pipelines, enabling accurate pet monitoring and automated model improvement

# NLP Entity-Linking-Based Note Taking App (in progress) $\mathscr S$

- Built a Spring Boot app for semantic note-taking with NLP-based keyword extraction and entity linking
- Integrated Wikipedia's category hierarchy to organise notes into interactive tree and graph views
- Implemented RAG-based natural language querying to let users search notes through an LLM interface, allowing for both intelligent knowledge organisation and semantic search

## Patient Data Management and Visualisation System (Hackathon) $\mathscr S$

- Developed with Flask, NextJS frameworks for rapid development, creating an MVP in under 12 hours
- Utilised Three is library to display lesions on a 3D model and ApexCharts to provide summary statistics
- Presented our app in a sales pitch, placing us 2nd in a hackathon with 44 participants

#### **SKILLS**

Languages: Java, Python, HTML5, CSS3, JavaScript, TypeScript, SQL, C, C#

Frameworks/Libraries: Spring Boot, React, Flask, PyTorch, OpenCV, Cucumber, NextJS, Angular, Three.js

Tools: Git Docker Jenkins GCP Redis PostgreSQL SQLite MockServer Label Studio

**Other**: Video editing (DaVinci Resolve), Photoshop, Persian (Native Fluent)