Hasan Akhtar

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EDUCATION AND QUALIFICATIONS

University of Bradford Sept 2023 – May 2027

BSc (Hons) Computer Science

First Year Average: 88%

- University Projects details in 'University Projects' section below.
- **Key Modules** (2nd year current): Artificial Intelligence, Database Systems, Data Structures & Algorithms, Numerical Analysis, Enterprise Pro, Computer Communications and Networks
- **Key Modules** (1st *year*): Mathematics for Computing (91%), Technical and Professional Skills (76%), Fundamentals of Programming (100%), Computer Architecture and Systems Software (92%), Software Design and Development (88%), Internet Technologies (82%)

Bingley Grammar (Secondary School + Sixth Form)

Sep 2018 – June 2023

A-levels: A* in Computer Science, B in Physics, and an A in Mathematics.

GCSEs: 9s in Mathematics, Physics, Further Maths and Computer Science; 8s in Chemistry, Biology, English

Literature and Statistics; 7s in Spanish, Geography, and English Language

TECHNICAL AND SOFTWARE SKILLS

- Data Analysis & AI Developed AI-powered tools and analysed consumer trends.
- **Technical Research** Authored business reports on AI mitigation strategies.
- Microsoft Power Apps Created business tools using Power Apps.
- Programming Skills Proficient in Python and Java development.
- Web Development Competent in HTML5, CSS, JavaScript, web APIs.
- Database Systems Solid understanding from coursework and projects.
- IT Systems Management Experienced in systems management and troubleshooting.
- Project Leadership Led a Java application development project.

UNIVERSITY PROJECTS

Java Coursework (Mole game)

Fundamentals of Programming – First year (100%)

- Completed code for Java class methods to do with player movement, non-player character movement, tile generation, edge boundary limitations, scoring, adding new levels, player mining and more.
- Made use of 2D arrays, nested for loops, random generation, existing methods and more.
- Made proficient usage of Java, a new programming language for this project and completed the extension task, utilising Java GUI classes and conducting extra research for this task.

Use Case Diagrams, Programming and Unit Testing

Software Design & Development – First year (88%)

- Researched definitions for Actor & Use-case, constructed a simple Use-case diagram based on a basic banking system, classified text files based on year-specific numbers, applied unit testing.
- · Made use of Regular expressions, file reading and writing methods, Javadoc documentation and more
- Further developed my proficiency in Java and learnt new techniques and skills in Java programming.

Group Project (Extracurricular activities system)

Software Design & Development – First year (88%)

- Led a group of 8 or 9 students to develop a Java application with a web-based front end, also helped produced Software requirements and Software Design with detailed software documentation.
- Further developed leadership skills and advanced Java skills, especially using web APIs

Dynamic website (Online E-commerce Shop)

Internet Technologies – First year (82%)

- Utilised HTML, CSS, JavaScript, PHP, and MySQL technologies to help develop this website based on selling Internet of Things (IoT) gadgets, including administrator specific permissions and pages.
- Gained vital experience of back-end web development and furthered my skills in front end.

EMPLOYMENT AND VOLUNTARY WORK EXPERIENCE

University of Bradford - Lab Demonstrator

Sept 2024 - Present

- Providing support and assistance to first-year students during their practical lab sessions.
- Addressing queries and solving issues with software and applications.

BCFT – AI-Driven Social Impact Advocate, Bradford

July 2024 – Sept 2024 (10 wk. internship)

The Bradford Children and Families Trust (BCFT) supports children and families in Bradford, working closely with the local council. During this role I have achieved:

- **Researched** challenges in child social care faced by the Trust.
- Analysed AI solutions to address the Trust's needs.
- **Developed and deployed** an Al-powered document search for training guides.
- Thoroughly tested AI document search for functionality and bugs
- Authored a business report on challenges and AI mitigation strategies.
- Built a Work Hours calculator in Python and Microsoft Power Apps
- Experimented with and tested document extraction AI features in programming environments.
- Evaluated speech-to-text AI features in programming environments (using Google AI APIs)
- **Created** an *AI testing agent* using Gemini and Hugging Face models.

Volunteer – The Children's Society, Shipley

Aug 2023 – July 2024 + Sept 2024 (approx. 1 year)

Contributed to a charity focused on supporting young people. During the 2022/23 term, their systems change efforts impacted approximately 863,555 young individuals, collaborating with over 24,000 professionals. *In this role, I demonstrated the following skills:*

- **Resilience** tagging clothes, even when faced with challenges.
- Organizational sorting clothes, steaming, and handling toys and books.
- Maintenance and Initiative maintaining the shop floor.
- Communication serving customers at the till.

SKILLS AND ACHIEVEMENTS

Programming Projects:

- <u>GUI calculator</u> A Tkinter calculator made in python.
- Football Pong A football themed spin-off of ping-pong.
- <u>Graphs Displayer</u> A program to display graphs (nodes + edges) in various formats.
- <u>Chest Chess</u> A spin-off of chess involving chests.
- <u>Football Chess</u> A football themed spin-off of chess.
- Truth Table Generator A program that generates a truth table for a Boolean logic gate.
- YouTube Playlists Plugin A browser extension to optimise functionality of playlists on YouTube.
- Al Powered Code Translator An app that lets you write coded in structured English, then translates it to executable python code, powered by Artificial Intelligence.
- Al Cover Letter Writer A python program that utilises Gemini, takes full CV as input in top left box, full job description in top right box and then can click a button to generate Cover Letter in bottom box.

Awards:

- iDEA (Inspiring Digital Enterprise Award) <u>Bronze</u> and <u>Silver</u> [achieved July 2020]
- TechTheFuture Technology Work Experience Certificate [achieved October 2022]
- Microsoft Azure Al Fundamentals (Al-900) [achieved May 2024]
- Brad-Attain High Achievement in Research Award (based on BCFT Internship) [achieved October 2024]

LEISURE INTERESTS

Sports/Personal fitness – Gym (3 times a week), Football & Basketball (in the park with family) **Gaming** – PlayStation games e.g. Fortnite, EA sports Fc24 etc.

YouTube channels – main channel: <u>Fifa Utuber - YouTube</u>, Python Tutorials YouTube <u>channel</u> (with <u>website</u>) **Other** – Programming Projects – see **Skills And Achievements** section above.

REFEREES

Dr. Amr Abdullatif, Assistant Professor / Personal Academic Tutor **Mr James Hobson**, Bradford Children's & Families Trust

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