MOHAMMED AQEEL ISMAIL

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Career Objective

Recent BSc Computer Science graduate, currently pursuing an Honours degree at UKZN, with part-time experience as a Programming Demonstrator. Passionate about developing efficient and scalable software, with a strong foundation in object-oriented programming (OOP), data structures, and algorithms. Eager to secure a graduate software developer role to contribute to innovative projects and expand my technical skills in a professional environment.

Education

University of KwaZulu-Natal
BSc Computer Science and Information Technology | Start date: Mar 2022 – Graduation date: 15 May 2025

2025: BSc Honours (Computer Science)

Relevant Coursework:

- Object-orientated Programming
- Data Structures and Algorithms
- Database and Programming
- Artificial Intelligence
- Computer Systems and Theory of Computation
- Image Processing and Computer Vision
- System Analysis and Design
- Networking and Database Management

Raisethorpe Secondary School
2016- 2020
National Senior Certificate (Bachelor's Pass)
Achieved 4 distinctions with an A Aggregate pass
Subjects:

- English Home Language
- Afrikaans First Additional Language
- Mathematics
- Life Orientation
- Accounting
- Geography
- Life Sciences

Technical Skills

Programming Languages: HTML, CSS, Python, Java, C++, SQL, C#

Frameworks and Tools: Wing, Notepad++, JGrasp, Eclipse, Clion, SQLSMS19, Visual Studio, Google Colab, IntelliJ IDEA, ASP.NET, PowerBI, Scikit-Learn, Pandas, NumPy

Core Competencies: Object-Orientated Programming, Web Development, Data Structures and Algorithms, Database Management, Problem Solving, Team Collaboration, Debugging, Artificial Intelligence, Machine Learning

Experience

Programming Demonstrator (Part-time)
University Of KwaZulu-Natal | Feb 2024- Oct 2024 | Aug 2025- Oct 2025

- Tutored first-year and second year students in mastering Python, Java and Data Structures during practical lab sessions.
- Guided students through debugging, code design and algorithm implementation; prepared and ran hands-on lab exercises
- Supported peer mentoring and collaborative problem solving to reinforce lecture material and improve practical outcomes.
- Modules:
  - Comp100- Introduction to Computer Science; Language: Python (2024)
  - Comp102- Computer Programming; Language: Java (2024 and 2025)
  - Comp201- Data Structures and Algorithm (2025)

Key Projects

Point of Sales system for Townbush Pharmacy (Third year group project)

- Full-stack ASP.NET web application with secure authentication, shopping cart and payment integration using C#, HTML, CSS, JavaScript and MS SQL Server.
- Designed SQL database for product inventory, user accounts, employee details and transactions; implemented transaction management and performance optimizations.
- Focused on clean UI/UX and reliable checkout flow.

Simple Biology Quiz and Word Search Game (Third year group project)

- Led a team of third year students in developing an interactive multiple-choice biology quiz with an integrated word-search puzzle for enhanced user engagement in C++.
- Implemented difficulty levels, timed challenges, and random question selection to adapt to the player's skill level.
- Designed modular functions for quiz logic, word-search generation, and timer management to ensure code clarity and scalability.
- Focused on creating a smooth user experience with responsive input handling and clear feedback for correct and incorrect answers.
- Demonstrated strong problem-solving and algorithmic thinking through efficient puzzle generation and game-state management.

DNA Sequence Classification (Honours Project)

- Developed a comparative DNA classification framework using both traditional Machine Learning models (Naive Bayes, Logistic Regression, Random Forest, SVM) and CNN.
- Applied k-mer feature extraction and n-gram tokenization to encode nucleotide sequences from Human, Chimpanzee, and Dog datasets.
- Achieved up to 97% accuracy on Human sequences using probabilistic models, demonstrating the effectiveness of classical ML for biological data.
- Implemented the deep learning pipeline using TensorFlow and Keras, showcasing cross-disciplinary application of AI in bioinformatics.

	Additional projects and AI-related assignments can be viewed on my GitHub profile: github.com/tomRiddle-the1st View my portfolio on: tomriddle-the1st.github.io
Strengths	Strong analytical and problem-solving mindset Adaptive and quick to learn new technologies Excellent communication Teamwork abilities Detailed oriented and organized in project execution Motivated to achieve excellence in software craftmanship Competitive Leadership Accountability Detailed Orientated
References	Available on request