

RUBEN DREYER

SOFTWARE DEVELOPER

ABOUT ME

I am Ruben Dreyer, and I am a software developer based in South Africa, Gauteng. I hold a **Bachelor of Science in Information Technology** degree from the **North West University**. During my studies, I gained practical experience through freelancing and the development of various projects utilizing technologies such as Flutter, NodeJS, Python, and Java. I enjoy to take on new challenges and continuously improve my skills.

PRACTICAL EXPERIENCE

- **Freelance** 2022 - current
 - Secured first job and developed a cross-platform mobile application (iOS and Android) that displayed real-time cryptocurrency data, including current prices, candlestick charts, and comprehensive details on selected coin pairs.
 - Created an advanced cryptocurrency screener website summarizing data for over 300 coins, featuring various candlestick patterns and technical indicators across multiple timeframes, enabling quick identification of market trends.
 - Developed an automated trading bot that analyzed historical prices, trends, and indicators to identify potential bullish market opportunities and autonomously placed buy orders. Deployed the bot on AWS, ensuring continuous operation and scalability in a cloud environment, optimizing investment strategies.
 - **Final year of university** 2024
 - Gained advanced knowledge in databases, learning complex data management and optimization techniques.
 - Explored artificial intelligence, with projects and applications in machine learning and predictive models.
 - Studied decision support systems, enhancing problem-solving skills for data-driven decision-making.
 - Developed a deep understanding of computer networks, including protocols, network architecture, and security measures.
 - Mastered key concepts in operating systems, such as process management, memory allocation, and system performance.
 - **Second year of university** 2023
 - Learned Java, systems analysis and design, information security, and mathematics, enhancing programming and analytical skills.
 - Developed a group messaging application as part of a collaborative project, applying agile methodologies and sprints. The aim of this application was to improve student-lecturer communication, with features for group creation and real-time announcements.
 - **First year of university** 2022
 - Gained foundational programming skills in Python, developing problem-solving abilities through coding assignments and projects.
 - Studied statistics to apply data analysis techniques and enhance quantitative reasoning.
 - Explored business management principles, understanding key concepts in organizational behavior and strategic planning.
 - Strengthened mathematical skills, supporting analytical thinking and the application of mathematical methods in computing tasks.
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EDUCATION

Bachelor of Science in Information Technology (BSc IT), North West University Vanderbijlpark, 2024

SKILLS

- Programming Languages: Python, JavaScript, Dart (Flutter), Java, C#
 - Frameworks & Technologies: Flutter, Node.js, Firebase, WebSocket, Flask
 - Cloud: AWS, Azure
 - Database Management: Firebase, Cloud Firestore, SQL, MongoDB
 - Web Development: HTML, CSS, JavaScript
 - Version Control: Git, GitHub
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PROJECTS

- **Netflix Clone** - A Netflix clone build in Flutter using The Movie Database
- **Safe Route Maps Application** - Developed a Discovery Insure clone using Flutter and Python, integrating Safe Routes with real-time, OSRM-powered routing to optimize user safety by dynamically avoiding high-risk areas.
- **Messaging Application** - Designed a real-time messaging application with Flutter and Firebase featuring group chats, profile pictures, status updates, and announcements for my second year project.
- **Interactive Chat Application** - Developed an interactive chat application with Flutter and Node.js with token-based authentication, real-time message delivery via WebSockets, and customizable message organization.
- **AI for Flappy Bird** - Developed a reinforcement learning model from scratch using the NEAT algorithm in Python to play Flappy Bird.
- **AI for Super Mario Bros** - Developed a reinforcement learning model from scratch using the NEAT algorithm in Javascript to beat the first level in Super Mario Bros
- **Chess analysis** - Developed a chess analysis tool in Python that evaluates player moves, indicating mistakes, blunders, and optimal strategies. Just like chess.com
- **Cryptocurrency screener** - Built a web application using HTML, CSS, JavaScript and Python that summarizes data for over 300 cryptocurrencies, allowing for quick market analysis.
- **Trading Bot** - Developed a trading bot using Python and AWS that analyzes market trends and automatically executes buy/sell orders

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