CHARLES BOATENG

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LinkedIn | GitHub | Portfolio
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OBJECTIVE

I'm a developer specializing in Data Mining, Machine Learning, and software development, with a track record of turning data into actionable insights and optimizing system performance. I'm passionate about data-building algorithms and committed to continuous learning to tackle new challenges effectively.

EDUCATION

Master of Science in Computer Science   December 2024
Florida Atlantic University – Boca Raton, FL   *GPA: 3.92/ 4.0*

Bachelor of Science in Computer Science   September 2020
Kwame Nkrumah University of Science and Technology – Kumasi, Ghana   *GPA: 3.30/ 4.0*

TECHNICAL SKILLS

Programming Languages: Python, C#, .NET Core, JavaScript, HTML, CSS, R, Java, C++.
Version Control & Collaboration: Version Control & Collaboration: Git, GitHub, GitKraken, Jira, Asana, CI/CD Pipelines, Slack.
Business Analytics: Data Management, Tableau, Power BI, Business Intelligence, Statistical Analysis, Data Visualization.
Cloud & DevOps: Azure, AWS, GCP, Docker, Kubernetes, Azure DevOps.
Office Suite/ Others: Microsoft Office proficiency (Advanced Excel, Word, PP), Databases, Presentation, Communication.

RELEVANT WORK EXPERIENCE

Graduate Research Assistant – *Florida Atlantic University – Boca Raton, FL*   May 2023 – December 2024

- Utilized machine learning algorithms and techniques, including classification, regression, clustering, and neural networks, using Python libraries such as Scikit-learn, TensorFlow, and PyTorch.
- Visualized driver trips using QGIS, mapping spatial data points for each trip to enhance understanding of driving patterns.
- Published papers in IEEE and Multimedia Tools and Applications Journal, proposing innovative methods in grid-indexed spatial-temporal analysis and in-vehicle sensor analysis, achieving 97% predictive accuracy. *(Click Here)* to my Google Scholar.

Software Development Intern – *OneHope Inc – Pompano-Beach, FL*   June 2024 – Aug 2024

- Built and optimized a performance profiling system using C#, ASP.NET Core, and Entity Framework, improving system performance by reducing query execution times by 35%.
- Actively communicated technical solutions to both development teams and non-technical stakeholders, improving project delivery times and enhancing user experience.
- Managed version control via Git and GitKraken, ensuring 100% on-time deployments through Azure DevOps.
- Integrated Freshdesk with Asana, reducing ticket resolution times by 25% and improving team collaboration.

Junior Software Developer – *Digital Extensions – Accra-Ghana*   October 2020 – March 2023

- Automated data pipelines using SQL, increasing reporting speed by 25% and improving project data integrity.
- Followed Agile development methodologies to deliver project milestones efficiently and continuously collaborate with cross-functional teams.
- Managed Git version control and worked in an Agile environment, coordinating sprints and product updates with Jira.

RELEVANT PROJECTS AND RESEARCH EXPERIENCE

Deep Q-Learning for Autonomous Navigation   May 2024
Implemented Deep Q-Learning using Python and TensorFlow for autonomous navigation in a simulated environment. Focused on optimizing the Deep Q-Network architecture, achieving a 25% improvement in navigation accuracy and reducing training time by fine-tuning parameters such as learning rate and reward function.

Stock Market Social Media API   March 2024
Developed and deployed a scalable Stock Market social media API using .NET Core and Entity Framework Core, enabling real-time data processing and user social interactions. Integrated asynchronous database operations, which reduced response time by 40%, and utilized DTOs for efficient data handling, lowering payload size by 30%.

Time Series Analysis of US Monthly Unemployment Rates   January 2024
Performed a concise time series analysis on US monthly unemployment rates from 1948 to 2022. Explored trends, seasonality, and patterns through data visualization. Employed ARMA models, selected the optimal model (ARMA (15,19)) based on AICC, and thoroughly analyzed residuals for normal distribution and lack of autocorrelation.