

# Prince A. Tuffour

## SOFTWARE ENGINEER

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## PROFILE SUMMARY

**Dedicated** and **innovative software engineer** with a strong foundation in **mathematics** and a passion for **technology**. Proficient in a range of programming languages and tools, including **Python**, **JavaScript**, and **React**, with a keen interest in developing **efficient** and **user-friendly software solutions**. Experienced in **full-stack development**, **database management**, and **cross-functional teamwork**, I bring a **problem-solving** mindset and a **commitment to excellence** in **software engineering**. Eager to contribute to dynamic development teams where I can apply my skills in **coding**, **system design**, and **collaborative project management** to drive **technological advancements**.

## SKILLS

### TECHNICAL SKILLS

Python | Javascript | SQL | C++ | C | TypeScript | Jenkins | Unit Testing | TDD | Next.js | MySQL | Tailwind CSS | Radix UI | Prisma | Stripe | Algorithms & Data Structures | HTML | CSS | jQuery | Object-Oriented Programming | React | Bootstrap | Node.js | Flask | Django | Express | FastAPI | PostgreSQL | SQLite | MongoDB |

### PROFESSIONAL SKILLS

Predictive Modeling | Data Visualization | Analytical Thinking | Software Development Life Cycle | Team Collaboration | Excellent Communication | Continuous Learning | Adaptability |

### DEVELOPMENT PRACTICES & CONCEPTS

Docker | AWS | Google Cloud Platform | Agile methodologies | RESTful API Development | Git | Software Debugging & Optimization | Statistical Analysis | Algorithm Development | Cross-functional Teamwork | Continuous Integration/Continuous Development (CI/CD) |

## PROJECTS

### NETFLIX CLONE APP | React, Tailwind CSS, NextAuth, Vercel, Prisma, MongoDB

Jan 2024

- Developed a responsive Netflix clone with sophisticated UI/UX using React and Tailwind CSS.
- Implemented user authentication with NextAuth and managed backend processes using Prisma with MongoDB.
- Deployed on Vercel for high availability and scalability.

### FULL STACK ISSUE TRACKER | Next.js, Radix UI, Prisma, Tailwind CSS

Dec 2023

- Built a full-stack application for tracking and managing issues with a focus on user experience.
- Leveraged Next.js for server-side rendering and Radix UI for intuitive interface design.
- Integrated Prisma for efficient data handling and Tailwind CSS for custom, responsive design.

### FULL STACK BLOG APP | Python Flask, SQLite, Javascript

Oct 2023

- Designed and developed a full-stack blog application using Flask, with SQLite for database management.
- Employed data enrichment strategies to refine and enhance the quality of sales data.
- Applied a combination of time series analysis and predictive modeling to accurately project future sales patterns.

### FULL STACK E-COMMERCE APP WITH ADMIN DASHBOARD | Stripe, Next.js

Sept 2023

- Created a comprehensive e-commerce application featuring an admin dashboard.
- Integrated Stripe for secure payment processing and used Next.js for frontend development.

### YOUTUBE CLONE WEB APP | React, RapidAPI

Sept 2023

- Designed and developed an interactive YouTube clone web app with ReactJS emphasizing a user-centric experience that allows users to watch and engage with videos.
- Built a responsive cross-functional UI with video playback features, leveraging the power of RapidAPI for robust search functionality. Integrated frontend React with external YouTube APIs and focused on data-driven user experiences.

### FULL STACK PYTHON PROJECTS | Python, HTML, CSS, Javascript, RESTful API

Aug 2023

- Completed an intensive full-stack development portfolio, featuring projects in web development, GUI creation, and game development.
- Proficient in Flask for web applications, tkinter for GUIs, and Python's turtle module for game development.
- Demonstrated skills in API integration, data analysis with Pandas, Matplotlib, Scikit-Learn, and multimedia operations.
- Highlights include a Cafe Management Web App, Movie Management Web App, Breakout Game, Image Watermarking Tool, and YouTube Video Downloader.

### GPU MEMORY PROFILER

Aug 2023

- Contributed to developing an open-source GPU Memory Profiler for TensorFlow and PyTorch.
- Involved in memory tracking, visualization tool creation, and profiling report generation, showcasing cross-functional collaboration and technical problem-solving.

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## WORK EXPERIENCE

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### GRADUATE TEACHING ASSISTANT

Oregon State University | Corvallis, OR | Sept 2021 - Dec 2023

- Instructed over 230 students in Calculus, Algebra, and Differential Equations, and over 50 students in introductory programming, enhancing their understanding of complex data science concepts.
- Developed and refined classroom management and communication techniques, significantly improving student engagement, comprehension, and performance during programming classes by 30%.
- Provided individualized support, contributing to a 45% increase in student mastery of challenging material, and improving course grades and feedback.

### DATABASE MANAGEMENT SPECIALIST

The AFEX Hub | Accra, Ghana | June 2016 - July 2021

- Led a team of database administrators, overseeing critical database operations, and ensuring high availability and performance, resulting in enhanced data integrity and accessibility.
- Played a key role in software development initiatives, aligning with the company's IP strategies and contributing to the seamless integration of database management with business goals.
- Designed and implemented new database architectures, improving data models and schemas BY 20% to support application releases and new development projects.
- Achieved over a 50% reduction in query run times through indexing improvements and normalization, enhancing system efficiency and user experience.

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## EDUCATION

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### MS MATHEMATICS | Oregon State University, Corvallis, OR

Sept 2021 - Dec 2023

Relevant Coursework: Programming and Data Structures, Linear Algebra, Applied Machine Learning, Probability, Numerical Analysis, Methods and Models of Applied Mathematics, Uncertainty Quantification, Quantum Computing

### BSC MATHEMATICS | Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

Sept 2016 - May 2020

Relevant Coursework: Discrete Mathematics, Scientific Computing, Optimization, Statistics, Introduction to Computer Programming, Regression Analysis, Probability, Calculus

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## ACHIEVEMENTS & VOLUNTEER EXPERIENCE

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### BEST STUDENT, DEPARTMENT OF MATHEMATICS

2020

Kwame Nkrumah University of Science and Technology, Kumasi, Ghana

### SOFTWARE DEVELOPER, Volunteer

2018

FLEEF Ghana, Accra, Ghana

### MENTOR, Volunteer

2017

Innovate Ghana, Accra, Ghana

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## CERTIFICATIONS

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### J.P. MORGAN SOFTWARE ENGINEERING VIRTUAL EXPERIENCE PROGRAM

2023

Forage

### MACHINE LEARNING SPECIALIZATION

2023

Coursera

### DEEP LEARNING SPECIALIZATION

2023

Coursera