SAMUEL DESMOND ABBEY DARKO

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PROFILE

I am a self-taught, highly motivated web and software developer with a passion for merging technology, fashion, and the arts. Currently, I am interested in pursuing Computer Science, with a strong interest in integrating technology with fashion, arts, and business. I am particularly excited about how robotics, AI, and immersive technologies like Augmented Reality (AR) and Virtual Reality (VR) can transform both fashion and the arts—from automating sustainable production to creating immersive digital art and fashion experiences. By combining my passion for technology, fashion, and entrepreneurship, I aim to explore innovative solutions that will reshape creative industries and inspire new forms of artistic expression. I thrive in environments that demand creativity, efficiency, and collaboration. I'm eager to continue leveraging my skills and interests to push boundaries and deliver exceptional results in the tech and fashion-tech industries.

EDUCATION

Opoku Ware Secondary School, Kumasi, Ghana

September 2018 – September

2021

Major: General Science

Relevant Coursework: Integrated Science, Elective Mathematics, Physics, English Language, Social Studies

EXPERIENCE

WordPress Developer, Metis Educational Consult, Ghana **July 2023 – September 2023**

- Managed "news & articles" and "scholarship" post on the company website.
- Performed SEO which gained over 1,500 new users per month with YoastSEO and Google Search Console.
- Updated websites' UI libraries and UX
- Leveraged Google Analytics to measure real-time user behaviour

Web Developer(Freelance), GieUnifrais, France **November 2022 – February 2023**

- Designed front-end portal with basic HTML and SCSS.
- Developed and implemented RESTful APIs using Diango Rest Framework, ensuring efficient and scalable endpoints for various application functionalities.
- Created user models and integrated user authentication, including role-based permissions to manage access to different parts of the application.
- Hosted the website on a Linux server using Nginx, implemented SSL for secure HTTPS connections, and configured the server for optimal performance.

RESEARCH

1. Immersive and Interactive Environments: Transforming the Experience of Arts and Fashion through Technology – (Manuscript No: JFTTE-24-151342)

Submitted: Journal of Fashion Technology & Textile Engineering

This research highlights the potential of Immersive/interactive technologies to foster inclusivity, promote sustainability, and redefine how diverse audiences experience art and fashion.

Research Paper: Link to paper

2. Sustainable Fashion and Artistic Apparel Design: Innovation at the Intersection of Ecology and Creativity

As sustainability becomes more embedded within fashion, this research explores emerging technologies such as bio-fabrication, advanced 3D printing techniques for zero-waste garment production, and the integration of smart textiles that further reduce environmental impact.

Research Paper: Link to paper

3. Innovative Technologies in Fabric Design: Exploring Micro Robotics and Climate-Active Fibers in Wearable Technology

This paper explores the significance of micro-robotics in enhancing the functionality and aesthetics of textiles, alongside the role of climate-active fibres in promoting sustainability and comfort.

Research Paper: Link to paper

LEADERSHIP EXPERIENCE

- July 2024 Present → Chief Executive Officer (CEO), The Art Agora
- April 2024 Present → Chief Executive Officer (CEO), DevGearHub
- Jan. 2020 Sept. 2021 → President, Robotech (Robotics Club Opoku Ware School)
- June 2017 June 2018 → School Prefect (Best Scholars Preparatory / JHS School)

ACHIEVEMENTS / AWARDS

| CS with VEXcode VR Level 1 – Python Educator Certification | 30 th September, 2024 | VEX Code VR, a subsidiary of VEX Robotics |
|--|----------------------------------|--|
| Certification for hand-work and personal development | 30 th November, 2019 | RiSE by GRAF(Ghana Robotics Academy Foundation) |

PROFESSIONAL TRAINING / CERTIFICATION

| The Complete Flutter and Dart Guide | 15 th July - 1 st October, 2024 | Udemy |
|---|---|----------|
| Front End Development Libraries Course | 22 nd February-30 th June, 2022 | TopCoder |

SKILLS AND ABILITIES

- **Personal Development:** Strong interpersonal and problem-solving skills.
- Spoken Languages: English, Spanish(Read/Write), Welsh(Intermediate), Akan
- Programming language(s): Python, JavaScript, TypeScript, C++, Java, Ruby, Dart, SQL,
- Programming Framework(s): Next.JS, React.JS, Django, TailWindCSS, Flask, Kivy
- Back-End / Hosting Technologies: AWS, Heroku, Python Anywhere, Vercel, Railway, Firebase, Supabase
- Database: MvSOL, PosgreSOL, MongoDB
- Web Technologies: HTML5, CSS3, Bootstrap4, Semantic UI, Materialize.CSS, SCSS
- Operating Systems: Linux, Windows, MacOS
- API's: Diango Rest Framework, FastAPI

LINKS

Research Papers Folder - Research Papers

Certificates - All My Certifications