KWADWO OPOKU-DEBRAH

Senior Front End & Software Engineer

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Skills

HTML5 & CSS (SASS)	Jest / Vite / Cypress	User Interface and Experience (UI/UX)	Python
Responsive Web Design	JavaScript (ES6 – ES7)	Engineering Leadership	Microfrontend
React JS / Next JS/ Vue JS	REST APIs	Jira & Agile Methodologies	Typescript
Automated Unit Testing	NPM/Webpack/Yarn	Git & Version Control Systems	Serverless
CLI & Shell Scripting	AWS Cloud Services	Docker & Cloud Computing	Bootstrap CSS / JS

Experience

Senior Software Engineer / May 2019 – July 2025
Capital One Financial Corporation

• Led and supported multiple front-end projects and solutions using modern front-end frameworks like Vue JS and Typescript under our flagship micro-fronted case management application, which handles millions of customer account management cases. The application has now evolved into being an official enterprise solution for case management and is used in multiple lines of business across Capital One.

• Led and developed an infrastructure monitoring tool using Python to assess the health of AWS instances across the department, generating alerts for those with outdated, vulnerable, and non-compliant configurations. Thanks to collaboration with various stakeholders in adapting the tool for their needs, it has since been integrated as part of the official enterprise solution across Card Tech for instance monitoring and alerting.

• Led and supported junior and senior developers in enhancing the user interface of a Fraud management application, completely refactoring the codebase and increasing test coverage from nearly 0% to 100%. Also guided the team in adopting scalable, reusable solutions for API calls and code standards, providing one-on-one support during PR reviews and sharing knowledge with other teams. As a result of these efforts, the application experienced a highly successful launch, with no production errors reported for months.

• Acquired AWS expertise in managing production incidents while advocating for automation and mentoring junior developers in infrastructure deployment, maintenance, and disaster recovery techniques. Successfully resolved over 90 long-standing high-severity compliance issues which involved more than 40 pull requests, collaboration with multiple teams and the execution of several after-hours manual changes. Optimized cloud instance usage that resulted in annual savings of over $18,000, and spearheaded efforts in Cybersecurity issue management to enhance efficiency, achieving nearly 100% compliance with a 50% reduction in resolution time.

Senior Front-end Engineer / August 2017 – April 2019
Booz Allen Hamilton

• Extended functionality of https://www.usaspending.gov to allow complex user interactions and visualizations using D3 , Redux and React JS tech stack. The site has over 1.5 million in traffic on average every year.

• Spearheaded the front-end transformation of verbal requirements into a fully functional, defect-free prototype, which was successfully demonstrated to the client. Provided mentorship and design guidance to junior developers, ensuring adherence to project goals and 508 Compliance standards for accessibility. Recognized by senior leadership with an award for exceptional delivery. Additionally, implemented value-driven solutions using Redux to facilitate complex interactions on large datasets, yielding reliable results.

• Utilized Docker in upgrading front-end development environments to improve maintainability and reuse, in addition to managing networking between other Docker instances with production ready data.

Front-end Engineer / May 2017 - August 2017
Under contract to Bloomberg BNA

• Transforming redesigned static mock-ups for https://www.bna.com into a fully responsive, live coded website with pixel perfection, using HTML/CSS/JS on a Backbone JS and .NET technology stack. The site received over half a million in traffic on average every year and is now part of https://www.bloombergindustry.com/

Front-end Engineer / April 2016 – May 2017
Microhealth LLC under contract to Defense Health Agency (DHA)

• Played a vital role in modernizing a decade-old legacy enterprise application by leveraging modern front-end technologies such as React JS, JSON APIs, and reusable, modular JavaScript (ES6). Simultaneously, led a thorough design overhaul to improve usability, streamlined redundant data for enhanced clarity, and introduced innovative aesthetics, all while surpassing project goals.
• Created an agile friendly workflow for designing new features using mock prototypes to gather vital feedback before execution, saving several development hours and capital.

Front-end Engineer / January 2015 – April 2016
Apptium Technologies under contract to Comcast

• Collaborated with clients to thoroughly understand their design requests, resulting in solutions that not only meet their needs but also offer enhanced functionality to elevate their vision. Additionally, established coding and design project standards to promote rapid development, continuous improvements, and increased re-usability.
• Managing a team of 2 UI developers and 6 offshore Back-end Developers by establishing project deadlines, providing training, keeping track of product details, deliverables, art direction, assigning tasks and delegation.
• Through constant research and keeping up with UI/UX trends, modernizing the entire look and feel of several web applications including https://www.apptium.com/, improving style and marketability of Apptium.

Front-end Engineer / March 2012 – Current
UX Engage – IT Consulting & Contracting

• Designed and transformed redesigned static mock-ups for Georgetown University's Art Galleries into a fully responsive, live coded website with pixel perfection, using HTML/CSS/JS. The site received a healthy amount of traffic on average every year and is now part of https://www.delacruzgallery.org/
• Providing engineering and development consulting services for individuals, businesses and causes.

Education

The Art Institutes of Washington – Dulles / June 2010 - December 2014
Bachelor of the Fine Arts – Web and Interactive Media
Activities and societies: Graphic Design, Web Design & Web Development

Awarded The Concordian, the highest award for Art Institute students, for displaying exceptional leadership and prowess in providing academic assistance and academic excellence.
3rd student to ever be awarded The Concordian in the history of the Institute.
Dean's Honor Roll with an Enrollment Cum. GPA of 3.7

Certifications

Amazon Web Services Solutions Architect Associate

Websites I've worked on

https://www.usaspending.gov
https://www.bna.com (now part of https://www.bloombergindustry.com/)
https://www.delacruzgallery.org/
https://www.apptium.com/