BRANDON BROSS

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SUMMARY

With over a decade of experience in software engineering, I have demonstrated expertise in developing robust and scalable applications across diverse industries, including e-commerce, healthcare, and finance.

My proficiency spans the entire software development lifecycle, from designing and implementing core architectures to optimizing performance and ensuring regulatory compliance.

I excel in leveraging a wide range of technologies, including C#, ASP.NET, .NET Core, Angular.js, React.js, Node.js, and SQL databases, to create seamless communication between frontend and backend systems.

My experience with microservices architecture, cloud platforms such as Azure and AWS, and DevOps practices has enabled me to architect and deploy scalable and resilient solutions while streamlining deployment processes.

I have a proven track record of spearheading projects, mentoring teams, and driving agile methodologies to deliver high-quality software solutions on time and within budget.

My commitment to continuous learning and staying updated with emerging technologies positions me as a valuable asset in driving innovation and achieving business objectives.

EDUCATION

Princeton University, Princeton City, NJ
Sept 2009 - April 2013

Bachelor of Science in Software Engineering
- GPA : 3.8

SKILLS

Languages
C#, JavaScript, TypeScript, Java, SQL, C++, C, CSS, HTML5

Backend
.NET, ASP.NET, .NET Core, MVC, Restful APIs, SOAP, Node.js, Express.js, SpringBoot

Frontend
Angular.js, React.js, Redux, Vue.js, TailwindCss, jQuery

Database
MS SQL, PostgreSQL, DynamoDB, LINQ, MongoDB, Redis, MySQL, Oracle, Apache Cassandra, RavenDB

DevOps and CI/CD
Azure DevOps, Jenkins, Docker, Kubernetes, Terraform, Maven, Gradle

Agile Methodology
Jira, Trello, Agile Scrum, Kanban, Camunda

Testing
NUnit, MS Test, Selenium WebDriver

Version Control
Github, Gitlab, Bitbucket, SVN

Messaging System
Kafka, RabbitMQ

Web Development	**Other**
Microservices Architecture, Azure, AWS	Hibernate, Responsive Design, UI/UX Design, Mentoring, Leading a team

EXPERIENCE

Senior Fullstack Engineer   Jul 2021 - Feb 2024
APN Consulting Inc., Monmouth Junction, NJ

- Spearheaded the development, maintenance of a robust e-commerce platform, employing a comprehensive tech stack that encompassed **C#**, **ASP.NET MVC**, and **Angular.js**.
- Designed and implemented the core architecture of the application using ASP.NET MVC, adhering to best practices and design patterns such as MVC (Model-View-Controller) for separation of concerns.
- Developed **RESTful APIs** using **.NET Core**, enabling seamless communication between the frontend and backend components of the application. These APIs facilitated functionalities such as user authentication, product catalog management, and order processing.
- Combined Angular.js with .NET technologies such as **ASP.NET MVC**, **ASP.NET Core**, and Web API to create seamless communication and data flow between frontend and backend systems.
- Leveraged **Angular.js** to create dynamic and responsive user interfaces, implementing features such as product search, filtering, and pagination to enhance the overall user experience.
- Designed and implemented feature-rich user interfaces using Angular.js, incorporating advanced functionalities like **routing**, **form validation**, and **real-time updates** to enhance user experience.
- Implemented client-side form validation and error handling using Angular.js, ensuring data integrity and providing informative feedback to users during the checkout process.
- Integrated **third-party APIs** and services for additional functionalities such as shipping calculation, tax calculation, and payment gateway integration, enhancing the application's capabilities and scalability.
- Leveraging SQL databases like **MySQL** and **PostgreSQL**, designed and optimized database schemas to ensure efficient data storage and retrieval, resulting in an impressive 20% improvement in application performance.
- Architected and optimized **NoSQL** database solutions using **DynamoDB**, leveraging its scalability and performance for handling large volumes of data with low latency.
- Utilized **MongoDB** to store and manage unstructured data, providing flexibility and scalability for applications with evolving data models.
- Utilized **Microsoft Azure** to build and maintain the backend infrastructure, proficient in leveraging Azure cloud services, specifically **Azure Kubernetes Service (AKS)**, to architect, deploy, and manage containerized applications at scale.
- With a focus on Azure, architected and deployed scalable, resilient, and cost-effective solutions that cater to diverse business needs.
- My proficiency extends across the entire cloud ecosystem, encompassing services such as **Azure App Service**, **Azure Functions**, **Azure Kubernetes Service**, and **Azure Cosmos DB**.
- Utilizing Azure DevOps for streamlined CI/CD pipelines, automated deployment workflows, ensuring rapid and reliable delivery of software updates.
- Implemented robust monitoring and logging solutions using **Azure Monitor** and **Azure Log Analytics**, empowering teams with actionable insights into application performance and health.

- Delivered a web-based **CRM** system for a large client using the agile **SDLC methodology**, increasing the client's sales productivity.
- Implemented **CI/CD pipelines** using **Jenkins** to automate build, test, and deployment processes for .NET applications.
- Expertise in containerization technologies like **Docker** and **Kubernetes** has facilitated the containerization of applications, enabling efficient resource management and simplified deployment across cloud environments.
- Dockerized .NET applications and services to create lightweight, portable containers for consistent deployment across environments.
- Orchestrated containerized applications using Kubernetes to achieve scalability, resilience, and efficient resource management.
- Utilized **Jira** and **Trello** for project management, sprint planning, and task tracking within **Agile Scrum** framework.
- Actively participated in Agile ceremonies such as sprint planning, daily stand-ups, sprint reviews, and retrospectives to ensure project alignment and progress tracking.
- Developed comprehensive unit tests using **NUnit** and **MS Test** frameworks to validate the functionality and behavior of .NET components and modules.
- Automated testing processes to enable continuous integration and ensure code quality and reliability throughout the development lifecycle.
- Managed source code repositories using Git-based platforms like **GitHub**, **GitLab**, and **Bitbucket** for version control and collaboration.
- Implemented branching strategies, pull requests, and code reviews to facilitate collaborative development and maintain code quality standards.
- Integrated messaging systems like **Kafka** and **RabbitMQ** into .NET applications to enable asynchronous communication and event-driven architectures.
- Implemented message queues and topics for reliable message delivery, event streaming, and decoupled communication between microservices and distributed components.

Senior Fullstack Engineer   Aug 2017 - April 2021
Fusion Health, Woodbridge Township, NJ

- Spearheaded the development of a patient management system using **C#**, **.NET Core**, and **Angular.js**, **React.js**, ensuring seamless data management and user interaction.
- Created and maintained **RESTful APIs** using **ASP.NET Core** to facilitate data communication between the backend and frontend systems. Ensured APIs are well-documented and follow industry best practices.
- Leveraging my expertise in **TypeScript** and **Angular.js**, I implemented a responsive and intuitive user interface for healthcare professionals to access patient records and medical histories.
- Utilizing **microservices architecture** on **Azure**, orchestrated the deployment of scalable and fault-tolerant backend services, ensuring high availability and reliability of critical healthcare applications.
- Led a cross-functional team in adopting **Agile Scrum** methodologies, facilitating sprint planning, daily stand-ups, and retrospective meetings to streamline development workflows and enhance productivity.
- Implemented RESTful APIs using **Node.js** and **Express.js** to enable interoperability between healthcare systems, allowing for seamless data exchange and integration with external services.
- Implemented integration with payment gateway APIs for processing medical billing and insurance claims, ensuring secure and reliable transactions for healthcare services.

- Mentored junior developers on best practices for **UI/UX design**, ensuring consistency and usability across healthcare applications.
- Employed **Kafka** for real-time event processing, enabling timely notifications and alerts for critical patient events and updates.
- Developed unit tests using **NUnit** and **MS Test** frameworks to ensure the reliability and robustness of healthcare applications, adhering to industry standards and regulations.
- Collaborated with UI/UX designers to create visually appealing and user-friendly interfaces for healthcare professionals and patients, focusing on accessibility and ease of navigation.
- Leveraged Git-based platforms like **GitHub** and **GitLab** for version control and collaboration, facilitating code reviews and continuous integration.
- Designed and optimized database schemas using **MS SQL** and **PostgreSQL**, ensuring efficient data storage and retrieval for healthcare records and patient information.
- Orchestrated CI/CD pipelines using **Azure DevOps** and **Jenkins**, automating build, test, and deployment processes for healthcare applications.
- Implemented authentication and authorization mechanisms using **ASP.NET Core** Identity, ensuring secure access control and compliance with healthcare data privacy regulations.
- Integrated **RabbitMQ** for asynchronous communication between healthcare services, enabling decoupled and scalable architectures.
- Led the migration of legacy **SOAP-based** services to **RESTful APIs**, improving interoperability and performance of healthcare systems.
- Implemented responsive design principles and UI/UX best practices to optimize healthcare applications for **mobile** and **desktop devices**.
- Leveraged **Terraform** for infrastructure as code, automating the provisioning and management of Azure resources for healthcare environments.
- Conducted code reviews and mentored team members on clean coding practices and design patterns, fostering a culture of continuous learning and improvement.
- Developed custom reporting solutions using SQL queries and **LINQ**, providing healthcare administrators with insights into patient demographics and treatment outcomes.
- Utilized **Docker** and **Kubernetes** for containerization and orchestration of healthcare services, simplifying deployment and scaling of applications.
- Collaborated with healthcare stakeholders to gather requirements and define software specifications, ensuring alignment with industry regulations and standards.
- Facilitated knowledge sharing sessions on microservices architecture and Azure best practices, empowering the team to make informed technical decisions.
- Implemented **Kanban** boards and backlog grooming sessions to prioritize and track healthcare development initiatives, ensuring timely delivery of features and enhancements.
- Conducted usability testing and gathered feedback from healthcare professionals to iterate and improve the user experience of clinical applications.
- Integrated real-time analytics and monitoring solutions using **Azure Monitor**, enabling proactive detection and resolution of healthcare application issues.
- Spearheaded the development of a patient engagement portal using **React.js** and **TypeScript**, enabling patients to access their medical records, schedule appointments, and communicate securely with healthcare providers.
- Developed responsive user interfaces using React.js and **CSS**, ensuring seamless navigation and usability across desktop and mobile devices for healthcare professionals and patients.
- Utilized React.js libraries such as **Redux** or **MobX** for state management in complex healthcare applications, enabling efficient data handling and synchronization.
- Integrated **third-party healthcare APIs** for services such as **electronic health record (EHR)** systems, enabling seamless data exchange and interoperability with external healthcare providers.

- Conducted performance tuning and optimization of healthcare applications, identifying and addressing bottlenecks to improve system responsiveness and scalability.
- Implemented role-based access control (RBAC) using **Azure Active Directory**, ensuring granular permissions management for healthcare system users.
- Led the adoption of design thinking methodologies for healthcare application development, prioritizing user needs and feedback to deliver impactful solutions.

Senior Software Developer   Jul 2013 - April 2017
Bloomberg LP, New York, NY

- Leveraged **C#**, **JavaScript**, and **TypeScript** to develop robust and scalable financial applications, ensuring high performance and reliability.
- Utilized **Java** and **CSS** to create dynamic and visually appealing user interfaces for trading platforms and financial analysis tools.
- Implementing **ASP.NET Core** and **.NET Core**, built **RESTful APIs** and backend services, enabling seamless data communication and integration with frontend applications.
- Integrated **Spring Boot** with **microservices architecture** to design and deploy scalable and resilient backend services, ensuring high availability and fault tolerance.
- Leveraging **React.js** and **Redux**, I developed interactive and data-driven user interfaces for financial data visualization and analytics platforms.
- Developed database solutions using **MySQL** and **Oracle** to store and manage financial data, ensuring data integrity and reliability for critical business operations.
- Integrated third-party payment gateways to facilitate secure and seamless online transactions within our financial service platform, ensuring compliance with industry standards and regulations.
- Leveraged **third-party banking APIs** to enable account verification and fund transfers, enhancing the functionality and convenience of our financial service offerings.
- Utilizing **Apache Cassandra** and **RavenDB**, I implemented scalable and distributed database solutions, enabling efficient data storage and retrieval in high-volume environments.
- Designed and implemented **microservices architecture**, leveraging **Azure** and **AWS** cloud platforms for scalability and flexibility.
- Orchestrating CI/CD pipelines using **Jenkins**, **Docker**, and **Kubernetes**, automated build, test, and deployment processes, increasing development velocity and software delivery efficiency.
- Managing infrastructure as code with **Terraform**, I provisioned and configured cloud resources in Azure and AWS environments, ensuring consistency and reliability.
- Configured **Maven** and **Gradle** build tools to manage project dependencies and streamline the software development lifecycle.
- Practicing **Agile Scrum** and **Kanban** methodologies, I collaborated with cross-functional teams to deliver software solutions on time and within budget.
- Utilizing **Camunda** for business process management and workflow automation, I optimized operational efficiency and productivity.
- Managing source code repositories using **Bitbucket** and **SVN**, I facilitated collaborative software development and version control across distributed teams.
- Implemented messaging systems like **Kafka** and **RabbitMQ** for event-driven communication and data processing in distributed systems at Bloomberg.
- Employing **Hibernate ORM** framework, I simplified database interactions and improved code maintainability for software solutions.

- Implemented **responsive design** principles to ensure optimal user experience across devices for web applications and platforms.
- Utilized **JSON Web Tokens (JWT)** as a stateless authentication mechanism to securely transmit authentication credentials between client applications and our backend services, enhancing security and scalability.
- Integrated **OAuth 2.0** providers such as Google and Facebook to enable **single sign-on (SSO)** functionality for our financial service platform, simplifying the user authentication process and improving user experience.