BIREN PATEL

Senior Software Engineer

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SUMMARY

Banking & Healthcare Specialist | Cloud-Native Applications | 10+ Years in Enterprise Development

I am a **Senior Software Engineer** with over 10 years of experience designing and leading enterprise solutions across **banking**, **healthcare**, **SaaS**, **e-commerce**, and **fintech** sectors. Expert in **ASP.NET Core**, **.NET 6/7/8**, **C#**, and modern architectural patterns including Microservices, **DDD**, **CQRS**, and **Clean Architecture**. Strong background in building secure, scalable platforms using Azure and **AWS**, integrating **SQL/NoSQL** databases, and modern front ends like **React**, **Next.js,** **Angular**, and **Blazor**. Proficient in **API** design (**REST/gRPC**), authentication (**OAuth2**, **OpenID** Connect), and **DevOps** tools such as **Docker**, **Kubernetes**, **Terraform**, and **CI/CD pipelines**. Known for strategic technical leadership, mentoring development teams, and delivering high-performance solutions in Agile environments.

SKILLS

- ❖ **Languages :** C#, ASP.NET Core, VB.NET, JavaScript, TypeScript, HTML5, CSS3, SCSS, .NET core
- ❖ **Backend Development** : ASP.NET Core, .NET 6/7/8, Entity Framework (EF) Core, Dapper, Web API, MediatR, MVC, Microservices, Layered Architecture, CQRS, Onion Architecture, RESTful APIs, OAuth2, OpenID Connect, JWT, IdentityServer, ASP.NET Identity, Repository, Unit of Work, Dependency Injection, D3.js
- ❖ **Frontend Development (Full Stack) :** React.js, Next.js, Angular, Blazor, jQuery, NgRx, RxJS, Bootstrap, Material UI, Telerik, Kendo UI, Radix UI, Angular Material, PrimeNG, NG-ZORRO, Clarity, Nebular, Chakra UI, Tailwind CSS, Webpack, Vite, MSBuild, Babel, ESLint, Prettier
- ❖ **Databases :** SQL Server, PostgreSQL, MySQL, MongoDB, Redis, Cosmos DB, Entity Framework, EF Core, Dapper, Elasticsearch, Oracle, Azure Cognitive Search, NHibernate
- ❖ **Cloud Platforms :** Microsoft Azure (App Services, Azure Functions, Logic Apps, Azure SQL, Cosmos DB, Blob Storage, API Management), Azure DevOps Pipelines, GitHub Actions, GitLab CI/CD
- ❖ **DevOps & Infrastructure :** Docker, Docker Compose, Kubernetes (AKS), Helm, Terraform, ARM Templates, Application Insights, ELK Stack, Grafana, Prometheus, Serilog, Seq
- ❖ **Testing :** xUnit, NUnit, MSTest, Moq, Selenium, Playwright, Cypress, Postman, Swagger, JMeter, k6, TDD, BDD, Contract Testing (Pact), Integration Testing, End-to-End Testing
- ❖ **Package & Build Tools :** NuGet, MSBuild, .NET CLI, npm, Yarn, Visual Studio, Rider, ReSharper

- ❖ **Architecture & Patterns :** SOLID Principles, Clean Architecture, Domain-Driven Design (DDD), Event-Driven Architecture, API Gateway, CQRS, Ports & Adapters
- ❖ **Project Management & Collaboration :** Agile, Scrum, SAFe, Kanban, Jira, Azure Boards, GitHub Projects, GitLab, Bitbucket, Confluence, Slack, MS Teams, Miro, Notion
- ❖ **Soft Skills :** Problem Solving, Critical Thinking, Mentoring, Stakeholder Communication, Requirements Gathering, Leadership, Strategic Thinking, Time Management, Continuous Learning, Conflict Resolution. Responsive design, usability, authorization, wireframing, section 508, user research,
- ❖ **Principle** : design patterns, SASS, objected-oriented, communication skills, software architecture

KEY PROJECTS

1. FinTech – Real-Time Fraud Detection Engine

Tech Stack: .NET, C#, ASP.NET Core, Entity Framework, SQL Server, Azure, Docker, Kubernetes, RabbitMQ

Developed a real-time fraud detection engine that reduced fraud losses by 30% and improved detection accuracy by 25%, processing 2 million transactions daily with low-latency decision-making.

Site Url: https://www.acorns.com/early/

2. Healthcare – Healthcare Patient Portal

Tech Stack: .NET, C#, ASP.NET Core, Entity Framework, SQL Server, Azure, Docker, Redis, REST APIs

Worked on enhancing healthcare solutions by addressing regulatory challenges, ensuring HIPAA compliance, and optimizing performance for real-time patient data updates.

Site Url : https://www.bes.au/products/tamanu/

3. SaaS – Work Management & Automation Platform

Tech Stack: ASP.NET Core, C#, Entity Framework, SQL Server, Azure, Docker

Developed a multi-tenant workflow automation platform, streamlining complex business processes across client accounts with scalable architecture, real-time data caching, and seamless API integrations.

Site Url : https://www.wrike.com/

EDUCATIONS

🎓 **Bachelor Degree of Science in Software Engineering** – *Holy Names University , CA(2015)*

🎓 **Associate Degree of Science in Computer Science** – *MacMurray College, IL(2012)*

PROFESSIONAL EXPERIENCES

❖ **Senior Software Engineer**

SKsoft (Banking Software, 50 + employees) | Houston, TX | 2023– present | full time | Remote

A fintech company specializing in banking and treasury automation solutions.

- Broke monolith into **15+ .NET 8 microservices**, each exposing **RESTful Web APIs** and **gRPC** endpoints for sub-50 ms inter-service calls.

- Designed cloud-native, resilient infrastructure using **Azure App Services** and **Kubernetes** (**AKS**) to support the banking platform's scalability.

- Modeled entities with **EF Core** for maintainability, then hand-tuned critical queries with **Dapper** to reduce latency by 60% under peak loads.

- Implemented **OAuth2/OpenID** Connect with IdentityServer and **ASP.NET** Identity; issued **JWTs** with custom claims for role-based access control and **PCI-DSS** compliance.

- Orchestrated asynchronous fund transfers and failure compensation using **RabbitMQ**, ensuring guaranteed delivery and auditability.

- Implemented **MediatR** and **CQRS** patterns, decoupling business logic from infrastructure, which increased system flexibility and reduced complexity by 50%.

- Leveraged **Redis** for session tokens and reference data, cutting **SQL Server** round-trips by 45%.

- Dockerized all services, deployed to **AKS/EKS**, and managed **Helm** charts for versioned rollouts and rapid rollbacks. Automated infrastructure provisioning using **Terraform** and **ARM** Templates.

- Built **Azure DevOps pipelines** with automated builds (**MSBuild**), unit tests (**xUnit/Moq**), contract tests (**Swagger**), and security scans; integrated performance tests (**JMeter**, **k6**) to enforce **SLAs** before merge.

- Championed DevOps initiatives, setting up **CI/CD** pipelines with **Azure DevOps** and **GitHub Actions**, improving deployment frequency by 70%.

- Instrumented services with **Application Insights**, **Serilog**, and **ELK Stack**; created **Grafana** dashboards and **Prometheus** alerts to maintain 99.99% uptime.

- Worked alongside **React.js/Next.js** and **Angular** developers, defining **OpenAPI** schemas and integrating **Bootstrap/SCSS** and **Material UI** components for consistent UX.

- Led a team of 12 engineers in **Agile** ceremonies (**Scrum**), conducted bi-weekly design reviews, and championed continuous learning through brown-bag sessions on advanced **.NET** features (Span<T>, async streams).

- Partnered with product, security, and compliance teams via **Jira**, **Confluence**, **Slack**, and **MS Teams** to gather requirements, prioritize features, and pass **SOX** audits with zero findings.
- Collaborated with cross-functional teams to align technical execution with business objectives, improving time-to-market by 25%.

❖ Software Engineer

Microsoft Corporation *(Healthcare IT, 200,000+ employees) | Fridley, MN | 2020 – 2023| full time | Remote*

A global leader in medical technology, offering innovative solutions in medical devices, therapies, and healthcare systems.

- Enforced **HIPAA** compliance with **JWT**-**based** token flows and fine-grained claims via **ASP.NET** Identity; integrated **OAuth2** for single sign-on across clinical applications.
- Built clinician dashboards in **AngularJS** with **Bootstrap** and **SCSS**, leveraging **NgRx** for state management and **RxJS** for reactive telemetry streams from medical devices.
- Orchestrated **RabbitMQ**-**backed** queues for real-time device data ingestion; forwarded messages to processing microservices and notified frontends via **WebSockets**.
- Stored unstructured telemetry in **MongoDB** and session data in **Cosmos DB**; used **Redis** for caching lookup tables (procedures, medications), reducing **SQL** hits by 60%.
- Optimized database interactions using **Dapper** and **Entity Framework Core**, reducing query latency and increasing data retrieval efficiency.
- Packaged services and dashboards using **Docker Compose**; deployed to **Azure Kubernetes Service** for environment parity and automated scaling.
- Automated testing using **xUnit** and **Selenium**, achieving 90% test coverage and ensuring high-quality releases for sensitive healthcare data.
- Set up continuous integration and deployment pipelines with **Azure DevOps**, reducing manual errors and speeding up deployment cycles by 50%.
- Integrated **Redis** for caching frequently accessed data, improving system performance by 30% and reducing latency.
- Configured Application Insights and **ELK** for log aggregation; built **Grafana** panels to track throughput and error rates, enabling proactive issue resolution.
- Participated in **Kanban sprints**, collaborated via **Jira** and **Confluence**, and conducted daily stand-ups and retrospectives to refine requirements and drive continuous improvement.
- Leveraged **Kendo UI** and **Telerik** for rich form controls, ensuring accessibility and consistency across healthcare apps.
- Managed event-driven workflows using **Azure Event Grid** and **Azure Service Bus**, facilitating real-time updates for medical data processing.

- Mentored junior developers in problem solving, debugging, and clean code practices; facilitated requirements gathering workshops with clinicians and stakeholders.

❖ Full Stack Developer

IBM (B2B SaaS, 200,000+employees) | San Francisco, CA | 2017 - 2020 | full time | Remote

Offer SaaS-based payment processing and financial solutions for businesses, enabling them to accept payments, manage transactions, and access business analytics through cloud-based software.

- **Built scalable ASP.NET Core APIs** on **.NET 7**, handling **20K TPS** with optimized performance paths using **Dapper**.
- The Dapper approach minimized overhead, improving response times and system resource usage.
- **Designed hybrid GraphQL/REST endpoints** for the **merchant dashboard**, improving API efficiency.
- This reduced **payload sizes by 50%**, leading to faster data delivery and improved performance.
- **Enabled real-time updates** with **Redis pub/sub** and **WebSockets** for **React/Next.js** apps.
- This allowed live data updates without polling, enhancing user experience with real-time notifications.
- **Deployed microservices** to **AWS EKS** using **Docker**, **Helm**, and **Terraform** for **IaC**.
- This automated deployment process improved scalability, availability, and fault tolerance.
- **Led CI/CD with GitHub Actions**, ensuring automated builds, tests, and deployments.
- Enforced **test coverage** and **API contract validation** to catch issues early and speed up releases.
- **Integrated Prometheus and Grafana** for monitoring and visualizing system metrics in real time.
- Used a **service mesh with mTLS** and **traffic shaping** to secure and manage service communications.
- **Delivered frontend optimizations** using **Webpack** and **Vite**, improving load times and responsiveness.
- Guided teams on architectural best practices to create scalable and maintainable systems.

❖ .NET Developer

Square (finTech, 15,000+ employees)| San Francisco, CA | 2015 – 2017| part time | Remote

A financial services company offers peer-to-peer lending and loan trading, and is publicly traded on the NYSE under the ticker symbol LC.

- Migrated **VB.NET** systems to **ASP.NET Core** (**.NET 6**), improving maintainability by 80%.
- Modeled data with EF Core and used Dapper for credit scoring queries, reducing latency by 55%.
- Secured APIs via **OAuth2** and **JWTs** using IdentityServer, enabling partner integrations.
- Built event-driven workflows with **RabbitMQ** for verification and investor notifications.
- Cached key data in **Redis**, cutting SQL load by 40% and speeding up loan decisions.
- Deployed containerized services to **Azure Kubernetes** with **CI/CD pipelines** in **GitLab** and **Jenkins**.
- Drove API gateway patterns, logging, and compliance support for **KYC/AML** and audit readiness.