Shawn Ohn

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PROFESSIONAL EXPERIENCE

Klick Health   **Toronto, ON**
Freelance Application Developer   *Dec 2025 – Present*
- Contracted to provide full-stack software development services for Software as a Medical Device (SaMD) solutions within regulated client environments

Strata Research, Ltd.   **Kitchener, ON**
Software Developer   *Aug 2021 – Apr 2025*

Lonza Project (Healthcare / Biotech)

Delivered an enterprise platform for Lonza Group AG by replacing a legacy protocol tracking and germ test machine control system with a modern, scalable .NET architecture.

- Architected the platform with self-hosted, on-demand scalable servers using ASP.NET Core
- Implemented database access with Entity Framework Core supporting local SQLite and remote SQL Server, with provider-specific migrations for schema consistency.
- Built the API layer using ASP.NET Web API with JWT Bearer authentication and role-based access control.
- Enforced strict operational separation, where administrators manage the full data lifecycle while standard users operate in read-only mode.
- Developed a cross-platform client application with MAUI for Windows, macOS, and Android, using Blazor and Bootstrap for reusable responsive UI with localization support.
- Applied Test-Driven Development (TDD) with MSTest and Coverlet, provisioning isolated databases to validate workflows, achieving full regression coverage and resolving all legacy defects.
- Translated evolving laboratory workflow requirements into actionable technical designs, collaborating with QA to ensure the platform aligned with regulatory standards and user needs.
- Managed the application lifecycle post-launch, including automated regression testing, release planning, and developer documentation.

Turnstone Project (Municipal Infrastructure / Smart Cities)

Modernized municipal curb management systems for the Seattle Department of Transportation and the City and County of Denver by consolidating fragmented AWS components into containerized services with a unified PostgreSQL database. Delivered predictive modelling, geospatial visualization, and third-party system integration through an API-centric architecture. (turnstonedata.com)

- Reduced infrastructure costs and simplified deployments by replacing 50+ Lambda functions and 20+ API Gateway endpoints with containerized services and a custom PostgreSQL schema on AWS RDS.
- Expanded system interoperability by implementing Python FastAPI endpoints and containerized data processors on AWS Fargate/ECS, supporting 12+ external data sources.
- Improved API performance by 80% and reduced average response times from seconds to sub-500ms by optimizing ETL workflows and implementing occupancy generation with predictive analytics using linear regression.
- Enabled geospatial visualization of 1,000+ municipal parking segments by generating GeoJSON metadata from OpenStreetMap and municipal open data, including street networks, boundaries, and infrastructure coordinates.
- Accelerated frontend performance by 70% and improved geospatial clarity by migrating from React to Next.js and integrating Mapbox, DeckGL, and Recharts for high-fidelity analytics dashboards.
- Collaborated closely with city stakeholders and product designers to translate municipal requirements into intuitive tools for exploring and analyzing parking and mobility data to build parking policies.
- Implemented CI/CD pipelines (Next.js, FastAPI, AWS data processors) with GitHub Actions, automating releases and generating notes from pull requests and issues, reducing deployment friction.

PROFESSIONAL EXPERIENCE

HitGrab Game Labs   **Toronto, ON**
Game Developer   *Oct 2020 – May 2021*
- Implemented cross-platform features for a mobile Blackjack game, including multi-platform sign-in, in-app purchases, and push notifications using Firebase, enabling consistent player access across devices.
- Ported the game to Android and released it on Google Play, bringing in 100+ new users and new in-app purchases.

Endev Studio   **Toronto, ON**
Mid Level Developer   *Feb 2021 – Apr 2021*
- Built core features for a mobile dating app using Flutter, Firebase, and Node.js, contributing to the initial launch.
- Implemented cross-platform UI and integrated real-time backend services (chat, notifications), ensuring responsive user interactions and scalable data handling.

Austem   **Cheonan, South Korea**
Software Developer   *May 2014 – Apr 2017*
- Designed and developed a C# .NET ERP system for an automotive manufacturer, improving scalability and streamlining workflows across finance, procurement, and production operations.
- Automated administrative tasks and implemented document generation features, eliminating manual processes and improving reporting efficiency.
- Worked with cross-functional teams across finance, procurement, production and HR to gather requirements and translate them into system features, ensuring alignment with operational needs.

EDUCATION

Master of Applied Computing   **Windsor, ON**
University of Windsor   *2018 – 2019*

Bachelor of Engineering in Computer Science   **Yongin, Korea**
Dankook University   *2006 – 2011*

SKILLS AND TECHNOLOGIES

- **Languages:** JavaScript, TypeScript, Python, C#
- **Frameworks:** React, Next.js, Tailwind CSS, ASP .NET Core, FastAPI, Node.js
- **Databases:** PostgreSQL, Microsoft SQL Server, SQLite, MongoDB, Prisma, GraphQL, Apollo Client, Supabase
- **Tools & Platforms:** Git, GitHub, AWS, Microsoft Azure, Google Cloud Platform, Firebase, Docker, Vercel, Netlify, Terraform