

Dvij Pandya

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Summary

Full-stack and cross-platform developer specializing in Flutter, .NET, Angular, and SQL Server with hands-on experience architecting enterprise-grade mobile and web platforms. Proven ability to build scalable systems involving AWS serverless infrastructure (API Gateway, Lambda, RDS, S3), wearable sensor integrations, and LLM-based automation modules. Experienced in designing robust RESTful APIs, implementing clean architecture patterns, and delivering production-ready solutions for research, healthcare, accessibility, and data-intensive workflows.

Experience

Student Research Assistant, Business Intelligence Research Group (BIRG) — UNBC

- Contributing as a full-stack and Flutter engineer across multiple enterprise-level research platforms including **Accessible UNBC, Biobank, and DCGA**.
- Architected and developed cross-platform **Flutter mobile applications** with offline-first workflows, media capture pipelines, wearable integrations (BLE/health sensors), and secure data synchronization.
- Engineered production-grade **.NET 6/7 RESTful APIs** using clean architecture, domain-driven design, JWT authentication, and asynchronous data pipelines.
- Built scalable **Angular dashboards** with reactive state, advanced filtering, analytics views, and secure role-based access control.
- Designed and optimized **SQL Server relational schemas**, including indexing strategies, stored procedures, and data integrity enforcement for large scientific datasets.
- Managed application hosting on **AWS serverless architecture** (API Gateway, Lambda, S3, RDS, CloudWatch) with continuous deployment pipelines through GitLab CI/CD.
- Integrated an internal **LLM-based module** to automate clinical care plan generation for the DCGA project.

Flutter Developer Intern, Bright Infonet – India (Remote)

- Developed the cross-platform mobile application **BoutiqFly** using Flutter and GetX with responsive layout systems for Android, iOS, web, and desktop.
- Integrated Firebase Authentication, Realtime Database, and Cloud Storage with secure data access layers.
- Contributed to Google Play Store deployment, debugging production crashes, and ensuring stable multi-platform releases.

Technical Skills

Languages: Java, Dart, C/C++, SQL, JavaScript, TypeScript, Python

Mobile Development: Flutter, GetX, Provider

Front-End: Angular, HTML5, CSS, Bootstrap

Back-End: .NET 8/9 (Web API), Node.js, RESTful API Design

Cloud & DevOps: AWS (Lambda, API Gateway, S3, RDS, CloudWatch), GitLab CI/CD, Docker

Databases: SQL Server, MySQL, Firebase (Auth, Realtime DB, Storage)

AI/LLM: Model-driven automation modules, LLM-assisted care plan generation

Tools: Git, GitHub, GitLab, VS Code, Visual Studio, IntelliJ

Education

University of Northern British Columbia, BSc in Computer Science

- GPA: 3.97

Projects

Accessible UNBC – Cross-Platform Data Collection System

- Designed and built a production-ready **Flutter app** for accessibility field data collection.
- Integrated **.NET REST APIs** with secure ingestion layers and validated data pipelines.
- Created an **Angular dashboard** for accessibility analytics and planning.
- Developed and optimized a scalable **SQL Server** schema.
- Deployed full stack on **AWS serverless** infrastructure.
- Helped UNBC improve accessibility infrastructure planning and make informed decisions for campus infrastructure development.

Biobank – Mobile Animal Collection Platform

- Built a cross-platform **Flutter app** for wildlife specimen collection with offline caching.
- Developed scalable **.NET 7 APIs** optimized for media-heavy uploads.
- Implemented a research-oriented **Angular dashboard** with taxonomy management and geospatial mapping.
- Designed optimized **SQL Server** schemas with indexing and transactional workflows.
- Deployed on AWS with S3, RDS, and API Gateway.
- Simplified tissue sample collection and tracking for researchers and trappers across BC, enabling more efficient wildlife studies.

DCGA – Digital Care and Geriatric Assessment Platform

- Developed a clinical-grade **Flutter app** for geriatric assessments with wearable integration.
- Built secure **.NET APIs** with encrypted data pipelines and JWT authorization.
- Created an **Angular portal** for vital monitoring and clinician dashboards.
- Designed robust **SQL Server** schema supporting time-series patient data.
- Integrated an internal **LLM** to auto-generate care plans.
- Improved elderly patient monitoring and automated personalized care plan generation for clinicians.

TravelMate – Intelligent Travel Planner

- Built full-stack itinerary planner with optimized schedules.
- Developed Angular frontend with interactive maps.
- Implemented Node.js APIs and SQL database models.
- **Impact:** Streamlined trip planning and route optimization for travelers.

MealPlanner – Personalized Nutrition Recommendation System

- Developed a Flutter mobile app with Angular admin dashboard.
- Built nutrition recommendation engine using BMI, dietary goals, and wearable data.
- Integrated smartwatch/health sensor pipelines to update nutrition plans dynamically.
- Implemented .NET APIs with SQL Server analytics workflows.
- **Impact:** Enabled personalized nutrition plans for users, improving health and diet adherence.