# Roman Boparai

## Senior Software Engineer | Backend & Systems Architect

Janesville, WI 53548 | (920) 650-7571 | rboparai1992@gmail.com
linkedin.com/in/ramnjit-boparai | github.com/ramnjit | romanboparai.com

## SUMMARY

Senior Software Engineer with **8 years** of experience architecting secure API gateways and data-intensive systems. Proven track record of building financial payment integrations (Braintree) and managing high-volume SQL data. Tech-agnostic leader with deep roots in **C#/.NET**, currently specializing in scalable Cloud Architecture (Azure) and RESTful API design.

## TECHNICAL SKILLS

- **Languages:** C# / .NET Core, SQL, JavaScript/TypeScript (Node.js), C++, Python, Java.

- **Cloud & Backend:** Azure Functions (Serverless), AWS (S3/Lambda), REST APIs, Microservices, Flask, Braintree API.

- **DevOps & Tools:** Docker, CI/CD Pipelines, Git, Perforce (P4V), Unity 3D, Unreal Engine 5.

- **Core Competencies:** System Architecture, Performance Profiling, Agile/Scrum Leadership, Technical Mentorship.

## EXPERIENCE

**CARL'S PLACE -** Milton, WI
**Lead Software Engineer -** *Jan 2025 – Jan 2026*

- Architected the **Internal Tools Platform** on **Azure**, utilizing **microservices principles** to centralize manufacturing data and streamline internal operations.

- Engineered a custom **Braintree Middleware** solution, integrating payment data into **automated Slack bots** to streamline fraud detection and transaction management.

- **Provided technical oversight for the internal Xamarin/.NET ERP system**, performing code reviews and debugging sessions to assist junior engineers with critical warehouse logic updates.

- Implemented **Google Authentication (OAuth) and Role-Based Access Control (RBAC)** to secure the **Internal Tools Platform** and manage employee permissions across the organization.

- Developed the core business logic for the **Custom Product Configurator** using **Node.js**, enabling real-time validation of user-defined dimensions and pricing.

**LOST BOYS INTERACTIVE -** Madison, WI (Remote)
**Software Engineer -** *Oct 2021 – Sep 2024*

- **Owned the End-to-End API Architecture** across three AAA titles (**WWE 2K22, WWE 2K23, WWE 2K24**), building **Python/REST endpoints** and implementing complex **C++ data binding** to drive data-driven UI systems.

- **Managed high-volume data pipelines** for the 'MyFaction' live service economy, utilizing **SQLAlchemy** and **Raw SQL** to ingest and validate massive gameplay datasets for millions of players.

- **Led the full-stack implementation** of the "Post-Match" reward system, coordinating cross-functional requirements to synchronize backend **reward transactions** with frontend visual assets.

- **Optimized database schemas and queries**, reducing latency in the transformation layer between the backend inventory systems and the client-side application.

**INDEPENDENT GAME DEVELOPER** - Janesville, WI
**Freelance Software Engineer** - *Jan 2020 – Oct 2021*

- **Full-Stack Development (C#/Unity):** Architected and prototyped core gameplay systems for independent titles, focusing on modular code design and performance optimization in the Unity engine.

- **Technical Skill Expansion:** Mastered modern C# design patterns and real-time physics simulations, directly preparing for the transition into AAA development at Lost Boys Interactive.

**EXTREME ENGINEERING SOLUTIONS -** Verona, WI
**Software Developer -** *Feb 2018 – May 2019*

- **Hybrid System Architecture (Python/C#):** Engineered a Python backend to process and stage critical data for embedded computing systems, serving a **C#/.NET** frontend for internal operators.

- **Manufacturing Automation:** Developed command-line tools to automate manufacturing tests, significantly reducing manual verification time for hardware units.

**UNIVERSITY OF WISCONSIN-WHITEWATER -** Whitewater, WI
**Research Assistant (Office of Naval Research) -** *Sep 2016 – Feb 2018*

- **AI Simulation:** Led a team developing "Inverse Reinforcement Learning" models to simulate human decision-making in naval combat scenarios.

- **Data Engineering:** Wrote custom **Python** scripts to clean and format simulation data for machine learning training sets.

**BEST BUY -** Madison, WI
**Sales Associate -** *Aug 2015 – May 2016*

- **Technical Consultation:** Advised customers in the computer and mobile departments, translating user needs into technical hardware solutions.

- **Communication:** Explained complex product specifications in accessible terms, consistently meeting department sales targets through effective problem-solving.

## EDUCATION

**UNIVERSITY OF WISCONSIN-WHITEWATER** – Whitewater, WI
**Master of Science in Computer Science** – *Jan 2018 – Dec 2019*

**UNIVERSITY OF WISCONSIN-WHITEWATER** – Whitewater, WI
**Bachelor of Science in Computer Science** – *Sep 2015 – Dec 2017*

## PUBLICATIONS

- **"A Contextual Decision-Making Framework"** – *Computational Context: The Value, Theory and Application of Context in AI* (2018)

- **"Analysis of a Computational Framework to Capture Commanders' Decision Making Processes"** – *SPIE C3I Technologies for Defense & Security* (2018)

- **"Capturing a Commander's Decision Making Style"** – *SPIE C3I Technologies for Defense & Security* (2017)

    - *Note: Published under legal name Ramnjit S. Boparai.*