

# BHUPINDER SINGH

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[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

## PROFESSIONAL SUMMARY

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Software Engineering graduate (B.S., Arizona State University, GPA 3.98, Summa Cum Laude) with hands-on experience designing scalable backend systems and full-stack applications in Java, Spring Boot, React, and AWS. Delivered five end-to-end projects spanning payments, distributed systems, real-time messaging, AI integration, and educational gaming for NASA. Authorized to work in the U.S. without current or future sponsorship.

## TECHNICAL SKILLS

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**Languages:** Java, Python, JavaScript, TypeScript, C#, C/C++, SQL, HTML, CSS, Bash

**Backend & APIs:** Spring Boot, Node.js, Express, Flask, REST, GraphQL, Microservices, JWT, WebSockets, gRPC

**Frontend:** React, Vue.js, Angular, HTML5, CSS3, Responsive UI

**Cloud & DevOps:** AWS (EC2, S3, RDS, DynamoDB), Docker, GitHub Actions, CI/CD, Linux/Unix, Git

**Databases:** MySQL, PostgreSQL, MongoDB, SQLite, Redis

**Testing & Methods:** JUnit, Selenium, Postman, Unit/Integration Testing, Agile/Scrum, Code Reviews, OOP, Secure Coding

**System Design:** Distributed Systems, Concurrency, Multithreading, Caching, Load Balancing, Scalability

**AI/ML:** OpenAI API, Generative AI, Prompt Engineering, REST-based AI Integration

## EXPERIENCE

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### JPMorgan Chase & Co. | Operations Lead

January 2026 to Present | Atlanta, GA

- Operating within a Fortune 50 regulated financial enterprise, gaining direct exposure to compliance, audit, and risk workflows applicable to enterprise software; identified inefficiencies and implemented data-driven process improvements that reduced transaction errors.

### Mission To Psyche (NASA) | Capstone Software Developer | [Live Site](#)

June 2025 to May 2026 | Tempe, AZ (Hybrid)

- Built "Corebound: The Metal Mission," a production-ready educational mobile game for NASA's Psyche Mission outreach program, teaching Psyche mission science concepts to middle-school learners; publicly released through the Mission to Psyche outreach portal as part of NASA's Psyche public engagement initiative.
- Developed gameplay systems and interactive UI features in Unity (C#) across six interactive mini-games teaching real Psyche mission concepts; integrated REST APIs to enable scalable features and real-time interactions across multiple game modules.
- Partnered directly with NASA sponsor stakeholders to translate Psyche science into engaging, age-appropriate gameplay; led system design discussions, code reviews, testing, and performance optimization across iterative two-week sprint cycles.

### The Global Career Accelerator | Software Engineer Internship

July 2025 to May 2026 | Remote

- Built and deployed full-stack web applications using HTML, CSS, JavaScript, and backend services; delivered features through Agile sprints, code reviews, and Git-based collaboration with clean code principles and incremental release cycles.

## PROJECTS

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### Event Booking and Payment Processing System | *Java, Spring Boot, MySQL, REST APIs, Stripe API*

- Built a secure payment-processing backend integrated with Stripe API, handling authorization, settlement, and refund flows across concurrent user sessions with parameterized queries and input validation.
- Implemented database-level locking and transactional consistency in MySQL to prevent double-booking under high request load; designed RESTful APIs in Spring Boot with comprehensive error handling.

### Real-Time Notification System | *Java, Spring Boot, WebSockets, Redis, REST APIs, AWS*

- Architected a distributed real-time messaging service using WebSockets and Redis Pub/Sub to deliver instant notifications across thousands of concurrent connections; designed for horizontal scaling on AWS.
- Built scalable Spring Boot microservices with asynchronous message handling; wrote JUnit unit and integration tests to validate race conditions, edge cases, and message delivery guarantees under load.

### Full-Stack E-Commerce Platform | *Java, Spring Boot, React, MySQL, REST APIs, JWT*

- Developed a production-style e-commerce application supporting product browsing, cart management, checkout, and order processing for 500+ daily transactions with JWT-based authentication and role-based access control.
- Designed normalized MySQL schemas with indexed queries and connected React frontend to Spring Boot REST APIs, reducing average checkout latency by 25% and ensuring data consistency under concurrent load.

### AI-Powered Language Learning Web App | *Python, Flask, Angular, OpenAI API, MySQL*

- Integrated OpenAI's API into a Flask + Angular web application serving 200+ learners with adaptive vocabulary and grammar feedback, improving answer accuracy by 40%; covered with unit and integration tests.

## EDUCATION

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### Arizona State University | Ira A. Fulton Schools of Engineering

Bachelor of Science in Software Engineering | GPA: 3.98 / 4.00 | **Summa Cum Laude** | Dean's List | August 2022 to May 2026 | Tempe, AZ

**Relevant Coursework:** Algorithms and Data Structures, Object-Oriented Programming, Software Architecture, Database Management, Distributed Software Systems, Engineering Secure Software Systems, Operating Systems and Systems Programming, Web-Based Applications, Mobile Systems, Software Analysis and Design.