# **Brian Engel**

Software Developer

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#### **SUMMARY**

Computer Science graduate with a concentration in Software Engineering, combining leadership and operational experience from the service industry with hands-on software development skills. Proficient in C++, Python, and Java, with full-stack development experience. Strong problem-solving abilities, proven leadership, and a focus on improving processes. Skilled in communication and collaboration, with a commitment to secure coding practices and working within Agile methodologies.

#### **SKILLS**

**Programming** C++, C#, Python, Java, JavaScript, TypeScript

Web Development HTML5, CSS, Angular, React, Node.js, Express.js, ASP.NET, Spring Boot

Database Technologies MongoDB, SQLite, MySQL, PostgreSQL

**Software Engineering Practices** Secure coding practices, algorithm development, modular design, full-stack development (MEAN stack), Object-Oriented Programming

**Development Tools** Git, Visual Studio, Eclipse, Android Studio, PyCharm

#### **EXPERIENCE**

## **Online Pickup and Delivery Associate**

Aug '21 — Jul '23

WALMART

Houston, United States

I leveraged problem-solving, adaptability, and attention to detail to ensure accuracy in high-volume tasks. Strong communication and customer service skills drove positive experiences, while training new team members reinforced leadership and teamwork.

Barback/Bartender

Apr '08 — Jun '20

Lucky's Pub

Houston, United States

As lead barback, I demonstrated leadership, teamwork, and problem-solving by coordinating operations, training staff, and managing inventory. Strong communication and collaboration ensured smooth event execution, while adaptability and multitasking allowed me to handle dynamic challenges efficiently.

## **EDUCATION**

# Bachelor of Science in Computer Science, Southern New Hampshire University (GPA: 4.0)

Aug '22 — Sep '24

Manchester, United States

- Graduated Summa Cum Laude, Presidents list all semesters
- CS-465 Full Stack Development: MongoDB, Express, Angular, Node, RESTful APIs, HTTP
- CS-410 Software Reverse Engineering: Linux, gbd, Assembly Language, C, C++
- CS-405 Secure Coding: Encryption, Numeric Overflow, Buffer Overflow, SQL Injection, Error Handling, Static Analysis, **Unit Testing**
- CS-370 Machine Learning: Python, Tensorflow, PyTorch, Keras, Q-Learning Algorithms and Models
- CS-360 Mobile Architecture and Programming: Developed Android apps in Java with SQLite, focusing on mobile architecture and UI/UX design.
- CS-350 Emerging Architectures: IOT, embedded devices, UART, GPIO, PWM, Embedded C, Firmware, state machines
- CS-340 Client-Server Development: Client-server architecture, TCP/IP protocols, RESTful APIs, database integration, and secure communication for building scalable web applications.
- CS-330 Computational Graphics: C++, OpenGL, 3D Object Modeling, Lighting / Shading, Textures, Transformations
- CS-320 Software Testing Automation and Quality Assurance: Unit Testing, DevOps, System Analysis, Test Procedures, Continuous Integration, Continuous Deployment
- CS-319 UI/UX Design and Development: User Interfaces, User Experience, Responsive Design, Prototyping, User Testing, Cross-Platform Usability, User Requirements
- CS-300 Data Structures and Algorithms: Binary Search Tree, Hash Table, Linked List
- CS-255 System Analysis and Design: Functional Requirements, Design Specifications, Design Development
- CS-250 Software Development Lifecycle: Agile, Scrum, Software Development Methodologies, Kanban
- IT-242 Geographic Info Sys: ArcGIS Pro, QGIS, Map Design, Spatial Analysis
- DAD-220 Structured Databases: Database Design, Data Science, Data Management, SQL, MySQL
- Calculus I and II, Statistics and Probability, Linear Algebra, Discrete Mathematics

## **CERTIFICATIONS**

#### **PROJECTS**

# MEAN Stack CS-465, SNHU Link

- Engineered a full-stack web application utilizing the MEAN stack (MongoDB, Express.js, Angular, Node.js). Achieved seamless integration of front-end and back-end functionalities, while implementing microservices principles and utilizing the Mongoose library for efficient object modeling and schema validation.
- Implemented RESTful API using Express.js as the back-end framework, managing CRUD operations with integrated middleware such as body-parser and morgan, and securing applications with authentication via Passport and JWT.
- Created a responsive and dynamic front-end user interface with Angular, leveraging reactive forms and routing, while ensuring mobile compatibility through custom CSS design, contributing to an enhanced user experience.