

# SHAYAR SHRESTHA

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## PROFESSIONAL SUMMARY

Experienced Software Engineer specializing in scalable backend systems and data processing. Proficient in C#, Python with expertise in distributed computing, caching strategies, and automation. Successfully worked on projects that improved data processing speeds, system scalability, and performance optimization. Adept at cross-functional collaboration and agile software development. Passionate about building efficient, high-performance systems that drive business impact.

## TECHNICAL SKILLS

**Programming Language:** C#, Python

**Databases & Data Engineering:** MSSQL, MySQL, PostgreSQL, Redis, MongoDB, RabbitMQ

**AI & Data Science:** Pandas, NumPy, TensorFlow, Keras, Scikit-learn, SQL

**Web & Backend Frameworks:** .NET Core, PHP Lumen, Entity Framework, React.js, Node.js

**Testing & Automation:** xUnit, Selenium, Postman, SOAP UI, Mulesoft (ETL)

**Agile & Documentation:** Scrum, Swagger, Confluence, Jira, Draw.io

## CERTIFICATIONS

<b>Microsoft Certified:</b> Azure Fundamentals (AZ-900)	January 2023
<b>Foundational C# with Microsoft</b> (FreeCodeCamp)	January 2024

## EDUCATION

<b>Hood College, Frederick, MD</b>	Expected Graduation: May 2026
Master of Science, Computer Science (Data Science Focus)	GPA: 4.0
<b>Tribhuvan University, Kathmandu, Nepal</b>	November 2018
Bachelor of Science in Computer Science and Information Technology	GPA: 3.56

## SOFTWARE ENGINEERING EXPERIENCE

<b>UBA Solutions, Nepal</b>	April 2020 – November 2023
Software Engineer (Offshore: Monotype Imaging, USA)	

- Developed a high-throughput data processing service which handled 100k data insertion/update using PHP Lumen and RabbitMQ, reducing data acquisition processing time from 3-4 months to 1 day, significantly reducing operational costs and enabling faster consumer data release
- Implemented Redis-based caching on Browse service, decreasing database query load by 30%, enhancing API response time by 40%, and improving overall system scalability
- Migrated legacy ASP.NET components to React.js, improving UI responsiveness, user experience, and maintainability by 40% which helped the site improve its SEO score and changes could be deployed more efficiently
- Developed robust .NET Core microservices for inventory management, resulting in a 25% increase in data accuracy and significantly reducing redundant manual efforts
- Enhanced test coverage to 80% using automated JavaScript and Selenium tests, cutting production issues by 15% and increasing software reliability
- Worked in a team of more than 7 individuals from 3 different countries to meet the financial goals

<b>Century Commercial Bank Ltd., Nepal</b>	October 2019 – March 2020
Junior IT Assistant	

- Automated customer communication workflows using Python and SQL, reducing manual

intervention by 35% and improving transaction notification efficiency

- Optimized database queries and data retrieval mechanisms, maintaining 99% Core Banking System uptime and enhancing data-driven financial reporting accuracy by 15%

## **Sursa Technology, Nepal**

August 2018 – October 2019

Associate Software Engineer

- Implemented a scalable, high-availability RESTful API for user authentication and management in .NET Core, using Identity Server.
- Enhanced testing efficiency with xUnit for test-driven development (TDD), increasing code reliability and debugging efficiency

## **PROJECTS**

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### **Dumps Selling Platform**

**Purpose:** To provide a secure and efficient platform for certification exam preparation materials.

- Built a full-stack web application using C#.NET, CQRS, PostgreSQL, and React.js.
- Integrated secure payment processing via Stripe, ensuring reliable transaction handling.
- Developed bundling features allowing users to purchase multiple certification dumps at a discount, enhancing user engagement and sales.

### **Iris and MNIST MLP Classifier**

**Purpose:** To explore machine learning classification for practical AI applications.

- Trained and optimized multilayer perceptron (MLP) models using TensorFlow for classifying Iris and MNIST datasets.
- Applied hyperparameter tuning to maximize accuracy and demonstrated proficiency in deep learning architectures.

### **Fine-Tuning GPT-2 for Context-Aware Text Generation**

**Purpose:** To customize NLP models for domain-specific knowledge generation.

- Fine-tuned GPT-2 on Bhagavad Gita domain-specific data using Hugging Face Transformers.
- Created a philosophically coherent AI model capable of generating contextual responses, demonstrating proficiency in transfer learning and NLP model adaptation.

## **VOLUNTEER EXPERIENCE**

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### **Flowspeak.io, Remote**

March 2022 – November 2023

Community Leader

- Provided constructive feedback, which improved platform functionality and user experience, resulting in a 20% increase in user retention
- Increased community engagement by 25% through the regular posting of relevant content and active communication with English learners

### **Data Experts (Coding Club, Hood College)**

September 2024 - Present

Chief On-Boarding Officer (Founding Member)

- Expanded club membership and actively contributed to problem-solving training