

SUNIL SHRESTHA

Computer Engineer: Distributed Systems & ML Enthusiast

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Computer Engineering with 4 years of industry experience with a deep interest in distributed systems, high performance computing and machine learning, who loves to solve problems and research on the cutting edge of technology in Computer Science. Collaborated with conservation experts and scientists around the globe to solve problems with ML. My career goal is to become a proficient problem solver adept at applying current technological knowledge to solve the fundamental problems of society.

Education

Tribhuvan University, IOE, Pulchowk Engineering Campus [\[reference\]](#)

Bachelor of Computer Engineering: 80.82%

2017 - 2022

- Graduated with Distinction as one of the top students from the faculty
 - Bagged the winner award in the HACK-A-WEEK competition at Locus Events
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Professional Experience

AFID (<https://afid.io>)

Full Stack Engineer

Perth, Australia (Remote)

Sept 2024 - Present

- Collaborated with fish ecologists and conservation experts from Australia, Hawaii to develop and maintain [AFID](#), an automated fish identification and measurement system.
- Engaged in performing research experiments, data gathering, and drafting research papers in the field of fish species identification using ML.
- Streamlined continuous data preparation, model training, and deployment pipelines for Yolo models.
- Accelerated the project release cycles by automating workflows with GitHub CI/CD.
- Handled smooth scaling of microservices under load by orchestrating Kubernetes on Oracle Cloud.

Logic Information System Nepal

Software Engineer [\[reference\]](#)

Jawalakhel, Nepal

Oct 2021 – Sept 2024

- Developed Information Management and Reporting systems for projects and resources.
- Standardized and secured the updates release and deployment cycles with Docker and Kubernetes.
- Researched on the earliest potentials of LLMs for building Data Warehouse query systems.
- Designed user-centric software, developing system architectures, and managing databases.
- Built a remote code execution system for online code compilation using isolated sandboxes.

Sireto Technology

Software Developer Intern [\[reference\]](#)

Kathmandu, Nepal

Aug 2021 - Oct 2021

- Worked on an open-source project, [CloudFirewall](#), to build a security rules monitoring system using Python and Linux's nftables project.
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Projects

Fish Identification and MaxN Frame Discovery [\[GitHub Org\]](#)

Sept 2025 - Present

- Produced a batch processing pipeline for video stream analysis using custom trained Yolo v5 model to automatically label and measure fish and calculate the MaxN frames.

Coding Sandbox - Remote Code Execution System

Jan 2023-Feb 2023

- Developed a remote code execution system for online code compilation utilizing isolated sandboxes and an accompanying system for hosting coding competitions.

CloudFirewall [\[GitHub\]](#)

Aug 2021-Dec 2021

- Designed and implemented a master client system for security rules monitoring using Python and Linux's nftables project, along with REST and gRPC APIs for state synchronization between Linux VMs.

Realization of Mental Hygiene Using Deep Learning (Undergraduate Major Project) [\[GitHub\]](#) 2021-2022

- Created an Android app for health sentiment analysis that detects depression symptoms, suggests personal growth methods, and includes a GPT-2-based AI companion trained on therapist conversations for support.

Crop Recommendation Using ML - AgroRecon

2020-2021

- Built a Web-based application that employs computational model ANN as learners to recommend a crop for site-specific parameters with high accuracy and efficiency.

IOE Publication Management Portal [\[GitHub\]](#)

2019-2020

- Developed for managing the articles, papers, and other formal publications published in different journals by the faculty members of the institution of Pulchowk Engineering Campus.

Skills Summary

- Languages:** Python, JavaScript, Go, C, C#, C++
- Frameworks:** Django, FastAPI, Pandas, React
- Tools:** Docs, Excel, PowerPoint, Linux, Bash, AWS, Azure, Git, GitHub, Docker, Kubernetes
- Databases:** Postgres, MySQL, SQLite, Redis
- Soft Skills:** Fluent Verbal and Written communication, Presentation skills, Teaching and mentoring
- Interests:** Travelling, Guitar, Table Tennis, Trekking
- Scores:** IELTS 8.0 [\[reference\]](#), GRE (Verbal 159/Quant 165) [\[reference\]](#)

Positions of Responsibility

- Mathematics Teacher:** Taught mathematics to G-8 to G-10 students at [Gloria School](#) [\[reference\]](#)
- Event Moderator and Organizer:** Hack-a-Week Event, Locus Exhibition 2022
- Event Organizer:** Yomari Coding Competition 2023, Pulchowk Campus
- Project Lead:** Project [FaithAnswered](#), a Q&A website for theology students community

Certifications and Awards

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| • HISSAN Student Award [reference] | - Apr 2017 |
| • Winner of Hack A Week, LOCUS 2020 [reference] | - Feb 2020 |
| • Runner up in The Yomari Coding Competition, LIS Nepal [reference] | - Nov 2022 |
| • Tekkon Rising Star, Tekkon Technologies [reference] | - May 2025 |
| • AWS Academy Cloud Foundations - Amazon Web Services [reference] | - Aug 2021 |
| • DevOps Foundations - LinkedIn [reference] | - Dec 2022 |
| • Natural Language Processing in TensorFlow - Coursera [reference] | - Feb 2022 |

References**Dr. Anku Jaiswal**

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