

Anish Shrestha

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[LinkedIn](#) | [Github](#) | [Website](#)

A software engineer who excels in writing maintainable code and modernizing applications, meeting deadlines with ease while fostering exceptional communication across all project stakeholders. Thrives on positive feedback to fuel continuous professional growth.

SKILLS / TOOLS

Languages: Python, Javascript, C#, SQL, PHP, (learning Rust casually)

Frameworks: Django, Flask, React, REST API, GraphQL, Docker, jQuery, pytest, AWS

Numpy, pandas, Huggingface, Laravel, matplotlib, Celery, Unity, Pytorch, Agile Scrum

Tools: Git, Github, Bitbucket, Extended Reality (XR), Linux, LaTeX, Vim, bash, nginx

EDUCATION

MIAMI UNIVERSITY

Oxford, OH

Master of Science in Computer Science

August 2021 - May 2023

- GPA: 3.8
- Courseworks: Web services, Machine learning, Advanced Networks, Network Modeling

INSTITUTE OF ENGINEERING, PULCHOWK CAMPUS

Kathmandu, Nepal

Bachelor's in Computer Engineering

November 2012 - September 2016

- GPA: 3.7
- Courseworks: Software Engineering, Data Structure & Algorithms, Object-Oriented Analysis and Design, Data Mining

EXPERIENCE

Guidehouse (NIH / NIAID)

Ohio

Senior Technical Consultant

July 2023 - Ongoing

- [HEDWIG] Setup data orchestration pipeline for large tomographic images.
- Upgraded legacy pipeline software stack.
- Updated AWS infrastructure using terraform, to deploy a containerized web application into fargate and RDS.
- [NEPHELE] Decomposed a large monolithic software system into smaller, modular components following a microservice architecture approach.
- Co-designed and implemented protocols such as RESTful APIs or message queues to enable seamless interaction between microservices.

Miami University

Ohio

Software Engineering Research Assistant / Teaching Assistant

August 2021 - May 2023

- Collaborated with two graduate students to develop an application for Natural Language Generation from Cognitive Maps using Generative Pretrained Model. Authored a research paper and presented at the [2022 Winter Simulation Conference](#).
- Co-conceptualized and implemented an [XR application](#) that enabled remote and synchronous concept map modeling using Microsoft HoloLens2. Authored a [research paper](#).
- Utilized GPT3 & GPT3.5 to explain simulation scenarios using Fuzzy Cognitive Maps.
- Graded courses like Intro to Artificial Intelligence, Mobile App Development, and Software Engineering.

ToggleCorp

Nepal

Senior Software Developer

July 2020 - July 2021

- Co-led as backend developer in agile development of [migration tracking application](#) for Internal Displacement Monitoring Center (IDMC).
- Communicated with the IDMC team to discuss new changes and integrate them in a bi-weekly manner.
- Integrated continuous deployment using Docker + Github + AWS Copilot to reduce deployment time to single clicks.

- Implemented components like filtering, report generations for [backend](#) of [thedeep.io](#). Reviewed pull requests for the same project.
- Performed Extraction and Transformation on 10,000+ legacy text-based data in several database tables to Load (ETL) into the novel system using Javascript and bash.
- Wrote optimized ORM queries and pdf generation tools for migration analysis reports.
- Created internal error handling schema for GraphQL api endpoints.

WhyUnified

Florida (Remote)

Full-Stack Software Developer

October 2018 - December 2019

- Led development of Business-to-Business (B2B) platform comprising three micro web applications (shopping, appointment scheduler, and email client) dedicated to diverse set clients.
- Conducted code reviews and unit testing of React and Django codebase as a full-stack developer to make weekly reports communicated to the CEO.

InfiniaHub

Nepal

Software Developer

October 2016 - September 2018

- Developed and managed backend of eCommerce software “InfiniaStore” as a lead backend developer to allow retail stores to sell online.
- Developed dynamic admin portals for InfiniaStore using jQuery, HTML, and Django template engine.
- Initiated containerization of web applications using Docker for cross-OS development.
- Mentored juniors and new-hires, and helped them become familiar with the existing codebase. Maintained development status reporting to the senior management development team.

PUBLICATIONS & APPEARANCES

- Design and Development of a Collaborative Augmented Reality Environment for Systems Science *Proceedings of the 57th Hawaii International Conference on System Sciences*, HICSS
- Automatically explaining a model: using deep neural networks to generate text from causal maps. *Proceedings of the 2022 Winter Simulation Conference*, ACM/IEEE
- Automatic text generation to explain simulations. *Symposium on Natural Language Processing and Simulation*, 2022, Miami University

PROJECTS

Collaborative concept maps modeling in Extended Reality

May 2022

- Led the development of [extended reality application](#) for Microsoft Hololens 2 using C# in Unity, Mixed Reality Toolkit (MRTK), and Visual Studio.

Automated Facial Expression Recognition

September 2016

- Implemented the feature extraction components for facial features using Gabor filters.
- Used PyTorch to create CNN layers to train facial expressions recognition model and evaluate.
- Transported the ML model to directly evaluate and annotate facial expression on a live video input.

EPL Score Predictor

February 2016

- Implemented basic machine learning algorithms like Back-propagation, KNN, and multi-layer perceptrons to predict the winner of [English premier league games](#).

CERTIFICATIONS

Computational Methods for Data Analysis

Coursera, Uncertified

AWS Fundamentals: Going Cloud-Native

Coursera, Credential: [WXP986AVCJAR](#)

Machine Learning

Coursera, Credential: [A5XAV6Z8KHUW](#)

Introduction to Deep Learning

Coursera, Credential: [WNNKGCESQEFP](#)