# Nirajan Basnet

Lalitpur, Nepal

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## SKILLS

**BACK END DEVELOPMENT:** .NET, Python, Flask, Django, FastAPI

**FRONT END DEVELOPMENT:** ReactJS, Redux, Javascript, Bootstrap, CSS

**CLOUD/DEV OPS:** Docker, Kubernetes, Azure, Terraform, Kafka, MQTT, Azure IoTHub

**DATABASES:** MongoDB, SQL, Postgres

**MISCELLANEOUS:** Java, CSharp, Rust, C++, Git, Tensorflow, Pandas

## EXPERIENCE

**FIDENZ TECHNOLOGIES, Singapore**                                    **July 2022 -**
*Associate Software Engineer*                                              *Remote*

- Provisioned and implemented architecture of a large-scale system using Kubernetes, Terraform, and Apache Kafka
- Designed and implemented CI/CD workflows to automate deployment on cloud
- Used Microsoft Azure to deploy and manage AKS clusters along with Azure IoT Hub for provisioning of IoT data
- Configured tools like Strimzi and MongoDB Kubernetes Operator to run Apache Kafka and MongoDB clusters on Kuberentes
- Leveraged Kafka Connect and Streams to develop Processors and Connectors to enable data synchronization between different data sources
- Applied best security practices in multiple applications by implementing health and security checks
- Extensively operated cloud, DevOps, and containerization tools like Docker, Kubernetes, Terraform, IoT Hub, and MQTT
- Implemented various optimizations in MongoDB database indexing and design, thereby improving the query time
- Developed multiple full-stack web apps using .NET, React.Js, and Redux.Js
- Mentored and handled code reviews of junior developers to foster their tech skills and mantain best code practice
- Researched and created reports about secret management and CD tools like Hashicorp vault and ArgoCD

**LogPoint Inc.**                                              **January 2022 - May 2022**
*Support and Solutions Intern*                                          *Lalitpur, Nepal*

- Participated in the Hands-on Sessions on Linux System Administration, SIEM, and LogPoint architecture
- Experimented with various backend storage and networking aspects of the LogPoint system
- Reviewed various customer support tickets to identify major SIEM issues and solutions

**NepAI Applied Mathematics and Informatics Institute for Research**          **August 2021 - March 2022**
*Research Intern*                                                       *Remote*

- Worked on a semi-supervised classification of Nepali tweets in eight inclusive COVID-related categories

**ASMI**                                                    **May 2019 - March 2020**
*Junior Researcher*                                                     *Remote*

- Conducted extensive research on the implementation of two-dimensional In-Video Advertising, emphasizing seamless integration of advertisements within platform videos to ensure a non-disruptive viewing experience.

## EDUCATION

**Bachelor in Computer Engineering**                          **November 2017 - March 2022**
*Pulchowk Campus, Institute of Engineering, Tribhuvan University*          *Lalitpur, Nepal*

- Achieved Rank 155 in the Entrance Exam of 2017 A.D. out of nearly 18,000 candidates - *top 1%*
- Graduated with *First Division honors*

`Relevant Coursework:`

- Data Structures and Algorithms
- Computer Networks
- Distributed Systems
- Internet and Intranet
- Database Management Systems
- Discrete Structure
- Artificial Intelligence
- Object Oriented Programming
- Big Data
- Numerical Methods
- Probability and Statistics

## Projects

**Public Discourse Analysis System** | *Python, ReactJs, FastApi, Tensorflow, Google Collab,*                              **December 2022**
- Developed a COVID tweets analysis platform that allows health decision-makers to view a real-time analysis of narratives of tweets, particularly in Nepali and Devanagari scripts.
- Researched and fine-tuned the MuRIL model for tweets in Nepalese language
- Assisted in the design and optimization of the FastAPI backend and React frontend of the web application

**COVID Volunteer and Plasma Donor System** | *Python, Django, MariaDb*                              **December 2021**
- Built a platform to register and collect COVID-19 plasma donors and volunteer Info as a part of academic DBMS thesis.
- Designed donor and volunteer interface and solved associated migration issues on the admin side.

**Sky-Bomber** | *C++, SFML*                              **March 2019**
- Built a desktop aircraft game by using C++ and SFML graphics library as a part of the academic OOP thesis
- Solved animation and airplane movement issues by devising mathematical equations

## CERTIFICATIONS

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| **Cisco** | Computer Networking Essentials |
| **Stanford University** | Machine Learning |
| **Imperial College of London** | Mathematics for Machine Learning Specialization |
| **Coursera** | Algorithmic ToolBox, DL and NLP Specialization |
| **IBM** | Digital Developer Conference: Cloud Native Track |

## Affiliations

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| **LOCUS** | CodeJam Contest Organizer | 2021 |
| **LOCUS** | DataRush Contest Organizer | 2021 |
| **Third Nepal Winter School in AI, NAAMII** | Teaching Assistant/Participant | 2021 |