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Binit Bhattacharai

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Kathmandu

EDUCATION

Bachelor of Technology, Computer Science and Engineering
Vellore Institute of Technology

Dec 2020 - Aug 2024
Vellore, India

- Received the full ride COMPEX Scholarship from the Embassy of India to Nepal.
- Graduated with a first class degree with a CGPA of 9.09 out of 10.
- Main courses: Data Structures and Algorithms, Neural Networks, Statistics, DBMS, Operating System, Cloud Computing, Cyber Security

WORK EXPERIENCE

Research Intern
*A*STAR - Agency for Science, Technology and Research*

Feb 2024 - July 2024
Singapore

- Awarded SIPGA and worked on Automatic Speech Recognition, Singing Voice Synthesis and Conversion, Speech Enhancement and Audio Classification with different neural network architectures like RNNs, GANs, diffusion, transformer and encoder-decoder.
- Worked with large scale audio datasets including Indonesian corpus (18k hours), ATC and Singing corpus.
- Conducted pretraining and finetuning of models like Wav2Vec2, Whisper, WavLM and AST for ASR and classification and Bark and VITS for singing generation and conversion.

Research Intern
Samsung Research Institute

Dec 2022 - Aug 2023
Bangalore

- Selected to work on a Samsung IoT Edge project as part of the PRISM program.
- Worked on the kernel of Linux based real time operating system, TizenRT.
- Implemented a network file system client library on TizenRT and used it for low storage embedded devices.

Full Stack Developer Intern
BitsKraft Nepal

May 2023 - July 2023
Kathmandu

- Developed an efficient MERN-based Employee Data Management System and contributed to the creation of RESTful APIs for a Drone Delivery System, enhancing operational efficiency.

PROJECT

Draxxing: Commission Artworks
Internet and Web Programming Course Project

Jan - Apr 2022

- Built an online portal for where you can sell your artwork as digital art, get hired to do commissioned artworks and merchandising it to grow a revenue source.
- Used HTML, CSS and JavaScript and its libraries for front-end and PHP and SQL for back-end.

Music Generation using LSTM
Neural Networks Course Project

Nov - Dec 2021

- Built a neural network to train and test musical patterns to generate music by predicting the next sequence of notes by implementing LSTM using NumPy, Keras and Music21.
- Improved the quality of the sound being generated as compared to other neural network models by using a combination of different layers and activation functions.

SKILLS

Programming

Java, Python, PyTorch, C, PHP, JavaScript, SQL, Git, Bash

Certifications

- Data Engineering, Big Data, and Machine Learning on GCP Specialization
- Microsoft Security, Compliance, and Identity Fundamentals

Conference Papers

- Self-Attention Siamese Network for Unsupervised Few-Shot Learning Tasks
 - **Intelligent Systems and Pattern Recognition (ISPR) 2024**
 - Authors: Binit Bhattarai, Pratik Luitel, and Mukku Nisanth Kartheek
- VietSing: A High-quality Vietnamese Singing Voice Corpus
 - **APSIPA 2024**
 - Authors: Minh Vu, Zhou Wei, Binit Bhattarai, Kah Kuan Teh and Tran Huy Dat