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D A R S H A N   A C H A R Y A

Education

Bachelor of Computer Engineering	**IOE,Paschimanchal Campus**	*Pokhara, Nepal*	**2017 – 2021**

- Percentage: 70.6%; Passed with first division honours

+2(High School)	**United Academy**	*Lalitpur, Nepal*	**2015 – 2017**

- Percentage: 75.6%; Passed with distinction marks

Relevant coursework:

Data Structures & Algorithms; Machine Learning;OperatingSystems; Digital Computation; Signals & Systems; Differential Equations; Advanced Calculus;Software Engineering,Linear Algebra, Computer Architecture

Experience

Associate Software Engineer	**Leapfrog Technology**	*kathmandu,Nepal*	**07/2022 – 09/2022**

- Part of the Frontend team where I help build scalable applications, mostly in the health-related sector for multiple national and outsourcing enterprises using React JS, Typescript, Node JS, Chakra UI. Particulary working on the UI design, and state and component management of applications.
- Designed and implemented scalable system APIs and background workers responsible for managing backend structure using Nodejs and Typescript. Continuous Integration/Deployment Pipeline Integration, Code Reviews, Unit Testing

Software Engineer, Intern	**Leapfrog Technology Inc**	*kathmandu,Nepal*	**05/2022 – 07/2022**

- Designed and implemented various frontend applications and design using CSS2, CSS3, Javascript, Nodejs, Firebase,Docker with the help of senior developers and mentors asssigned to the team. Link to internship projects
- Selected as one of the 28 interns from a pool of 1600 applicants with acceptance rate less than 5%

Machine Learning Engineer, Intern	**GritFeat Solutions**	*kathmandu,Nepal*	**05/2022 – 07/2022**

- Conducted detailed error analysis and developed models by breaking down the error classes and prepared a report on limitations of the model and improvement strategies on the road traffic data for the Government of Nepal.
- Used semi-supervised algorithms to utilize a large number of unannotated data for model training.
- Familarized with GAN, VAE, Factorization machines by participating in paper reading session.

Software Engineer, Intern	**Diagonal Technologies**	*kathmandu,Nepal*	**04/2021– 07/2021**

- Learned and immplemented API development , including RESTFUL APIs, microservices and graphQL. Trained in handling security and data protection, authentication and authorization between multiple systems, servers, and environments. Learned to write automated test suites for correctness and scalability.

Undergraduate Teaching assistant	**Paschimanchal Campus**	*pokhara, Nepal*	**2020– 2021**

- Worked under the supervision of **Er. Hari Prasad Baral**, then Head of department of Computer Engineering in Paschimanchal campus to organize and immplement various daily lesson plans and coding sessions for first year (fresher) students.

Executive Member	**Innovative Computer Engineering Society**	*pokhara, Nepal*	**2019 – 2021**

- Worked as an executive member of the Innovative Computer Engineering Society under the department of Computer Engineering where we helped organize different technical programs, training, and conferences with my seniors and mentors from different insitutional and technical orgranizations to the students of Paschimanchal Campus.

Projects

- **LOGIC SIMULATOR:** This application helps you to build different circuit diagrams such as johnson counter, half and full adder etc and visualize it . Demo   Code   Quick Video Demo takes 10secs to fetch projects from server .
- **DRAW USING FOURIER TRANSFORM:** This application helps to visualize how you can draw any figure using the application of Fourier transform. Demo   Code   Quick Video Demo
- **AUTOMATED MUSICAL TUNE COMPOSITION:** This application helps you to generate ABC musical tune notations on the go that can be played by using a inbuilt media player. Demo+working   Code
- **2D FIGHTING GAME:** Designed and developed a sonic-style modified retro game as a part of an internship project at Webpoint solutions Demo Code   Quick Video Demo

- **STOCK FORECASTING FOR NEPALI BANKS:** GIven all the stock data of past month, the model will predict the stock price of tomarrow based on four main features .The dense model and LSTM model are used as single step model as a part of time series analysis. Code
- **CHINESE TO NEPALI TRANSLATOR:** An application which can translate chinese to nepali speech offline. Bible corpus dataset is used for training on tranformer model. Tacotron 2 model is used for making text to speech system. Code

Participation and Achievements

- **Gold Award**: Won 1st prize for **Vector Codecamp, 2074** as a team leader along with my teammates Sulav and Milan. We made a portable Electrocardiogram device that helps you to measure the arrhythmic activity of the heart on the go.
- **Code with Coffee** : 3rd position secured among 38 teams organized by **ICES(Innovative Computer Engineering Society**) , It is a two-day light competitive coding contest where a set of challenging coding problems are solved.
- **Recepient of IOE Scholarship**: Secured 578 rank among sixteen thousand students appearing on National Engineering Entrance examination.
- **Winter School in AI**: Participated in 11day AI workshop organized by **NAAMI**
- **HULT prize**: Reached to **HULT prize** competition campus finals for two times with my team members. We presented a viable one stop solution to deliver fresh green grocery from the farm to doorstep of customers within a 24-hour timeframe.

Courses

- Linear Algebra, Gilbert Strang lectures series, MIT
- Neural Networks and Deep Learning, Coursera
- Applied AI by Srikant Verma
- Optimization in Machine Learning by Ganesh Ramakrishnan
- Improving deep neural networks, Coursera

Skills

- **FrontEnd**: CSS3, JAVASCRIPT, REACT, TYPESCRIPT,NEXT JS
- **Backend** : NODEJS, DJANGO, FIREBASE
- **ML programming**: PYTHON, PANDAS, NUMPY, KERAS, ,SCIKIT LEARN, TENSORFLOW,PYTORCH
- **Tools**: GIT, GITHUB, BASH, LINUX, FAMILARITY WITH DOCKER