

# Bikash Shrestha

Graduate Research Assistant with a history of working in the field of deep learning. Skilled in Python, Javascript, React, Web Development, Android Development, and Linux. Strong education professional with a Bachelor's degree focused in Computer Engineering and 3+ years of experience as a software engineer.

## EXPERIENCE

### UMSL, St Louis, USA — Graduate Research Assistant

May 2020 - Current

- My research includes analyzing data, data preprocessing, feature engineering, building deep learning models, and assessing and evaluating the results through qualitative and quantitative analysis.
- Developed a deep learning pipeline to predict the quality of protein's multiple sequence alignments (MSAs), [Alignment-Score](#).
- Developed a modified version of Deepmind's Alphafold pipeline for structure prediction, [Alphafold-Non-Docker](#).
- Developed a web server called [DISTEVAL](#) for evaluating predicted protein inter-residue distances.
- [Poster](#) presentation of DISTEVAL in [CASP14](#) and one of the top 10 groups in CASP14 competition.

### BlackBox Technologies, Kathmandu, Nepal — Software Engineer

April 2019 - Aug 2019

Worked as a react native developer to develop a mobile application called SkyApp which is related to IoT.

### Murcul, Hongkong — Part-time(Remote) Software Developer

Oct 2018 - Jan 2019

- Worked as a frontend developer for various websites like Juven, Epoints, Rainforest, FormBuilder.
- Worked as a DevOps for the development of a mobile application named Bump using Microsoft azure pipeline.

### Infinia Hub, Kathmandu, Nepal — Software Engineer

Oct 2016 - March 2019

- Developed an e-commerce website called InfiniaStores focusing on Supermarket products. Worked as a frontend developer as well as a data analyst.
- Developed a website called InfiniaBiz using react, redux, and Django
- Built an app using react native for the store owner or admin of InfiniaStores to manage orders and handle the warehouse.
- Developed a custom react library: [Deal-Materialize](#)
- Worked on a couple of WordPress projects: [Crustpnb](#), [Perplex Solutions](#), [Aspire Career Education Consultancy](#), [CKG Int](#)

7039 Nottingham Ave

St. Louis, MO 63119

(314) 437-6573

[shresthabikash637@gmail.com](mailto:shresthabikash637@gmail.com)

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

## Languages

Javascript, Python, HTML, CSS, C, C++, SQL

## Frameworks/Libraries/Technologies

React, React Native, Redux, Node, Flask, Django, NumPy, Pandas, Matplotlib, TensorFlow, WordPress, Bootstrap, REST API, Server Side Rendering in React, Git, Jira, Slack, Trello, Monday.com, Microsoft Azure, LaTeX, MongoDB, Amazon Skills

## PERSONAL PROJECTS

### COVID-19 Visualization —

#### Web App

Built a website to visualize the COVID-19 cases around the globe using react and Mapbox.  
<https://shrestha-bikash.github.io/covid19-map-visualization/>

### ImageClassifier —

#### Android/IOS App

Built an app with react native which captures the image and classifies it using deep learning. Tensorflow and Keras library was used to create the deep learning models.

See [GitHub](#) for more

## EDUCATION

### University of Missouri–St Louis, USA — *Graduate*

Aug 2019 - Current

Currently pursuing a Master's in Computer Science. Graduate Research Assistant of Dr. Badri Adhikari from [Deep Learning Lab](#) at UMSL.

### Institute of Engineering Pulchowk, Nepal — *Bachelor (Undergrad)*

Nov 2012 - Sep 2016

Completed my bachelor's in computer engineering from the most reputed engineering college of Nepal in 2016.

## Awards/Publications

- Pakhrin, SC; Shrestha, B; Adhikari, B; KC, DB. Deep Learning-Based Advances in Protein Structure Prediction. International Journal of Molecular Sciences. 2021. [[IJMS](#)]
- Adhikari, B., Shrestha, B., Bernardini, M. et al. DISTEVAL: a web server for evaluating predicted protein distances. BMC Bioinformatics 22, 8 (2021). [[BMC](#)]
- Adhikari, B., Shrestha, B., Bernardini, M. Real-valued protein distance prediction. CASP 14, 2020 [Abstract](#).
- Shrestha, B; Vaidhya, M; Sainju, B; Khaniya, K; Shakya, A. "Personality Traits Analysis from Facebook Data". In *2017 21st International Computer Science and Engineering Conference (ICSEC)*. [[IEEE Xplore](#)]