

Sanjog Thapa

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SUMMARY

With 5 years of experience as a Software Engineer, I have consistently showcased my coding proficiency and familiarity with architectural patterns for large, reliable, and highly scalable applications in Earth Data Science, Health and Digital Advertisement domains. I believe with perseverance and continuous learning, one can overcome any challenge.

WORK EXPERIENCE

NASA GHRC DAAC, ITSC UAH

Huntsville, AL, USA

Graduate Research Assistant

Aug 2022 - present

- Implemented a cloud-based data subset tool using RESTful API services in Python and dockerized serverless microservices in AWS, resulting in a 70% increased efficiency for subsetting on large Geospatial data.
- Released an open-source Python package for cloud-native interactive visualization playground for NASA GHRC, providing a more comprehensive and lucid view of atmospheric science data.
- Led the development of a cloud-native 3D Geo-visualization tool in ReactJS, together with multiple data processing pipelines in Python and AWS Lambdas, hence representing large heterogeneous data from NASA field Campaigns.

GURZU INC

Boston, MA, USA

Software Engineer

Aug 2020 - Aug 2022

- Worked closely with the product owners and stakeholders to understand and build custom add-on features needed for digital ads software using ReactJS, enhancing operational throughput by 40% and increasing reliability.
- Led the front-end development, driving the swift creation of a COVID test management system during the COVID outbreak, ensuring crucial business continuity during the pandemic's peak.
- Helmed a team of associate engineers in MERN stack, through a close collaboration with architects and stakeholders.

JYAASA TECHNOLOGIES

Kathmandu, Nepal

Associate Software Engineer

Jan 2019 - Aug 2020

- Designed and developed RESTful APIs, and integrated them with distributed services using RabbitMQ for message passing, to implement a resilient cloud-native digital billboard solution.
- Implemented authentication backend and WebSockets for highly available real-time inventory management system.
- Participated in peer code reviews for applications, ensuring compliance with the company coding standards, and organized several knowledge-sharing activities across the company.

PROJECTS

<https://www.sanjogthapa.com.np/#/projects>

SKILLS

- **Language:** *JavaScript, Python, Typescript, C, MATLAB, Ruby*
- **Web Technologies:** *ReactJS, NodeJS, ExpressJS, Django, WebSockets, JWT, GraphQL, HTML5, CSS3, RESTful APIs*
- **Cloud Services Platform:** *AWS Lambda, AWS EC2, AWS Fargate, AWS S3, AWS API Gateway, AWS Cloudwatch*
- **Database:** *PostgreSQL, MongoDB, SQLite, DynamoDB*
- **Data Science Tools:** *Numpy, Pandas, Matplotlib, Seaborn, Xarray, Jupyter Notebooks, Cesium, CZML, 3DTiles*
- **Build Tools:** *Terraform, Docker, Webpack*
- **Other Tools:** *Git, Linux/Bash, RabbitMQ, JIRA, Confluence, Spreadsheets*

EDUCATION

University Of Alabama In Huntsville

Huntsville, AL, USA

Masters in Computer and Information Science (GPA 3.9)

Graduation Date: Dec 2023

ACHIEVEMENTS

Obtained a full-ride grant as a Graduate Research Assistant in support of my pursuit of a graduate degree.