PRASUN DHUNGANA

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EDUCATION

Howard University

Expected Graduation: May 2025

Bachelor of Science in Computer Science | GPA: 4.0

Washington, D.C.

- Relevant Coursework: Data Structures and Algorithms (Python), Software Engineering, Operating System, Large Scale Programming (Java), Intro to AI, Intro to Machine Learning, Applied Data Science, Database Systems
- Activities: Google Developers Student Club (GDSC), HU Nepalese Students Association (HUNSA)

SKILLS & CERTIFICATIONS

- **PROGRAMMING LANGUAGES:** Python, JavaScript (JS), Java, R
- WEB TECHNOLOGIES: HTML, CSS, Bootstrap, Django, Flask, ReactJS, FastAPI
- TECHNICAL SKILLS: Git, Linux, SQL, Redis, Docker, Software Engineering, Object Oriented Programming (OOP), Data Science, Data Analysis, Data Wrangling, Data Visualization, NumPy, pandas, Matplotlib, Jupyter Notebook
- **CERTIFICATIONS:** AWS Certified Cloud Practitioner

WORK EXPERIENCE

EchoStar Corporation | DISH Network

June 2024 - Aug 2024

Software Developer Intern - Network Operations Center (NOC)

Littleton, Colorado

Washington, D.C.

- Developed an application for DISH Wireless/BoostMobile to conduct recovery measures for cell towers impacted by natural disasters
- Utilized Docker, Python Flask for backend, ReactJS for frontend, and Redis database, creating a full stack solution
- Collaborated with Wireless Deployment and NOC teams to receive feature requests and test completed features
- Implemented features include real-time impact visualization, recon updates, automated reports generation, etc.
- Achieved a projected 70 to 85% reductions in time for disaster recovery compared to previous methods

Howard University Center of Excellence in Housing and Urban Research and Policy (CHURP) May 2022 - Present Data Science Research Assistant and Front-End Developer

Research Projects

- Spearheaded research on homelessness and home purchase programs in cities like DC, LA, NYC, and Dallas
- Utilized Python and R for data wrangling, data analysis, and visualization of over 100 large demographic datasets- primarily with numpy, pandas, folium, matplotlib, etc.
- Generated over 100 static & dynamic visualizations such as maps, charts, and histograms pivotal to the center's research papers

Front-End Development

- Served as the lead designer for CHURP website, leveraging Drupal, HTML, CSS, and JS for its front-end
- Achieved a 57% website traffic boost within 3 months by optimizing user experience and functionality

PROJECTS

myFarm [GOES-R DataJam 2023 Group Project]

- Led a cross-functional team of 6 members to build a farm and crop recommendations app for U.S. based farmers
- Created the app using Django framework, HTML, Bootstrap, Jupyter Notebook, and Google Earth Engine
- Collaborated with GOES-R engineers to access satellite-based weather and soil data from their AWS S3 buckets
- App provides daily recommendations to users based on their crop, location, and weather and soil conditions

Online Food Delivery Application

- Full stack app developed in Python using Django framework, HTML, CSS, and Bootstrap
- Employed Django AllAuth to implement staff login and authentication for restaurant dashboard
- Executed secure payment handling for customers by utilizing PayPal's API and testing environment

COVID Classifier Model

- Created in Python using machine learning frameworks TensorFlow and Keras
- Employed the VGG16 Convolutional Neural Network (CNN) for image recognition to provide accurate diagnosis
- Predicts with 98% accuracy whether a given individual has COVID or not from images of their chest X-ray

AWARDS & ACHIEVEMENTS

CPAW Internship Award, EchoStar Corporation | DISH Network

Aug 2024 Jan 2023

NBCU Academy Scholarship Fund, NBCUniversal Academy

HU Founders Scholarship, Howard University