Subham Kumar Sah

980-355-9627 | ssah1@uncc.edu | linkedin.com/in/subhamsah17/ | https://subhamsah.com/

EDUCATION

University of North Carolina at Charlotte   Charlotte, NC
Masters of Science in Architecture & Information Technology   *Graduation: December 2022,GPA:3.79/4*

- Dissertation: Topic Guided thematic Analysis for social Media Data
  Advisor: Alireza Karduni, Ph.D.

Indian Institute of Engineering Science & Technology   India
Bachelor of Architecture   *2013-2018,CGPA:7.6/10*

TECHNICAL SKILLS

Design Tools: Rhino, Grasshopper, Honeybee, EnergyPlus, Revit, Sketchup, AutoCAD
Languages: Python, JavaScript, Java, C#, SQL
Web Technologies: HTML, CSS, JavaScript, Node.js, Express.js, React
Interface Design Tools: Figma, Adobe XD, Sketch, Adobe Illustrator, Adobe Photoshop
ML Packages:Pandas, NumPy, JAX, sci-kit-learn, PyTorch, TensorFlow, Keras
Frameworks: Flask,React, Django, Streamlit
Databases:MySQL , MongoDB (Intermediate)
Cloud Services:AWS EC2, Azure, Google Compute, Heroku
Visualization Tools/Softwares: AWS QuickSight, Tableau, PowerBI

WORK EXPERIENCE

UrbanSim Inc.   June 2022 – August 2022
Computational Design & Machine Learning Intern   *Seattle - WA*

- Worked on a Machine Learning Model using Graph Neural Network (GNN) that learns from Urban Parcel geometry, predicts place types(for e.g- Residential, Commercial, Industrial, etc.), and predicts building footprint geometry.
- Worked on mixed input Neural Network with population, income, and household with satellite(Mapbox) image to predict the place types in the neighborhood
- Worked on a Machine Learning algorithm using Graph Neural Network(GNN) to capture the Growth/Decline of population, income, and household for a given region over a period of time.

Urban Synergetics Lab & Digital Arts Center   January 2021 – Present
Research Assistant   *UNC Charlotte, Charlotte - NC*

- Worked on a competition for Determining Transaction Categories Using Machine Learning and Natural Language Processing.
- Developed an application for Deception Detection Techniques in jointly embedded Texts and Images.
- Developed an application for Exploratory Data Analysis of Social Media Data and a data Pipeline for exploratory Data Analysis that would help Data Analysts and Social Scientists to understand social media data and can take relevant steps
- Worked on analyzing the relationship between the Cost and Demand of shared Mobility Systems (On-Demand mobility systems).
- Designed and developed a cellular IoT Platform for Cyber-Physical Interaction between humans using Node.Js, SocketIO, ESP-32, and Pneumatics Structures.
- Working on the Machine-Learning(Decision Tree Model) that controls Air purification system using and Microcontrollers(RespberryPi).

HCP Design, Planning and Management Pvt. Ltd.   March 2019 – December 2020
Architect   *Ahmedabad - India*

- Worked on the Street Development Project, which primarily includes the development of the streets so as to have minimal impact on the surrounding landscape and increase Pedestrian safety.
- Worked on the Development of Central Vista Avenue, which includes developing publicly accessible museums, Creating a new common Central Secretariat to house all ministries, and a new Parliament building near the present one with increased seating capacity.

Relevant Courses & Projects

TensorFlow Developer Certificate   August 2022-Present

In-progress

- Topics covered - Regression; Binary/ Multi-Class Classification, Convolutional Neural Network, Recurrent Neural Network, Long-Short Term Memory, Gated Recurrent Units, Time Series Data

Visual Analytics   Spring-2022

Under Dr. Wenwen Dou

- Developed a Visual Analytics Dashboard for analyzing the City of Charlotte's "Service Requests 311" Dataset and US Census Demographic Data for Mecklenburg County

Interaction Design Studio   Spring-2022

Under Dr. Mary Lou Maher

- Worked on User Experience Research for new age digital contents and methodologies for the improvement of the interaction of people with NETFLIX, HULU, AMAZON-PRIME.

Applied Machine Learning   Fall-2021

Under Dr. Mirsad Hadzikadic

- Analysis, and Mapping Airbnb listings and analyzing particular locations where Airbnb listings fetch higher prices, and analyzing review sentiments
- Worked on the Generative Adversarial Network Plan for Floor plan Generation.

Connective Environment   Fall-2021

Under Dr. Dimitris Papanikolaou

- Designed and Developed a Mechanical Computing Device

Mobility on Demand   Spring-2021

Under Dr. Dimitris Papanikolaou

- Analysis of Multi-City Bike-Sharing Systems During Pandemic.

Network Based Application development   Spring-2021

Under Dr. Lijuan Cao

- Full stack website developed as part of the final project for network-based application development class at UNC Charlotte.

Human Computer Interaction   Spring-2021

Under Dr. Alberto Gonzalez

- Worked on User Interface Research and design for new ride-sharing app.