Neil Shah

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EDUCATION

Simon Fraser University   Burnaby, BC
Bachelor of Science (Co-op), Major in Computer Science, Minor in Statistics   *Sep. 2017 – Apr. 2023*
- Dean's Honour Roll for outstanding academic performance (Fall 2020)
- Coursework: Artificial Intelligence (A), Data Mining (A+), Affective Computing (A), Big Data (A+), Intelligent Systems, Statistical Computing, Data Analysis, Data Structures, Database Systems, Cybersecurity, Time Series

EXPERIENCE

Robots with Social Intelligence and Empathy (ROSIE) Lab   May 2022 – Aug. 2022
Machine Learning Research Assistant   *Burnaby, BC*
- Built a highly effective data annotation tool that significantly increased the accuracy and quality of responses, resulting in an 80% improvement in meaningfulness and productivity of the data annotation process
- Deployed the data annotator on Amazon Mechanical Turk, reducing time and costs by 50% for annotation tasks
- Implemented a program for splitting large video data files into smaller sizes, reducing upload time by 40% and improving the efficiency of data storage on the AWS S3 server
- Conducted in-depth analysis of large data sets, identifying key patterns and insights that informed the development of advanced machine learning models and algorithms
- Developed ML algorithms detecting human confusion and enhancing robots' human navigational intent

Simon Fraser University   Jan. 2021 – Apr. 2022
Teaching Assistant - User Interface Design & Statistics Workshop   *Burnaby, BC*
- Co-designed a successful UI Design curriculum, resulting in a B+ average and 95% student pass rate
- Mentored students in four statistics courses, effectively communicating complex concepts and techniques
- Facilitated discussions, provided constructive feedback, resulting in high-quality, user-friendly interfaces
- Evaluated prototypes, graded exams, and provided detailed feedback to 500+ university students per semester

Nextech AR Solutions   May 2021 – Dec. 2021
Data Scientist and Unity Developer   *Remote - Toronto, ON*
- Innovated an augmented reality application using the Unity game engine, enabling users to create, edit, and visualize human holograms
- Implemented features for the beta version, including hologram normalization and scaling, profile and content feeds
- Conducted sandbox testing to ensure optimal performance and prevent bugs in the application
- Utilized advanced techniques like image equalization to create material textures for view-in AR products and improve visual fidelity
- Created design documents and integrated UI/UX principles resulting in 50% improvement in task success rate, 70% increase in task completion rate, and 30% reduction in error rates

Simon Fraser University - Department of Chemistry   Jan. 2020 – Aug. 2020
Bioinformatics Data Analyst   *Burnaby, BC*
- Developed an algorithm to identify common patterns in protein sequences
- Conducted data cleaning and preprocessing of protein data, reducing data noise and errors by 60%
- Analyzed of disulfide bond pairs and glycosylation positions, leading to the discovery of key structural features
- Utilized data clustering and visualization techniques to identify protein structure patterns and anomalies, resulting in a 40% increase in understanding of protein function

PROJECTS

Toxic Emotion Detection | *Python* | ⌤   Feb. 2022 – Apr. 2022
- Built a multi-modal toxic content detection model using audio and textual data to achieve 93% success rate

Garbage Classification | *Python, R*   Nov. 2020 – Dec. 2020
- Won 2nd place in Kaggle competition, achieving 88.02% accuracy in classifying garbage into six different categories

TECHNICAL SKILLS

Languages: Java, Python, C/C++, C#, SQL, JavaScript, HTML/CSS, R
Frameworks: Apache Spark, Apache Hadoop, React, Node.js
Developer Tools: Git, Figma, GCP - BigQuery, AWS S3, Jira, Unity, Airflow, Postman
Libraries: Pandas, NumPy, Matplotlib, PyTorch, Tensorflow, Sci-kit Learn, Seaborn, Tinyverse, Dpylr, Shiny, Ggplot2