Ahmed Julkernain

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EDUCATION

Memorial University of Newfoundland   **Sept. 2021 – April 2025**
Bachelor of Science (Honours) in Computer Science
 • **Grade Point Average: 4.0**   • **Cumulative Average: 92.5%**

TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, Bash, HTML, CSS
Libraries/Framework: Node.js, React.js, Express, Matplotlib, Tensorflow, PyTorch, Pandas, SciKit-learn, NumPy, Swing
Databases: MongoDB, SQLite, PostgreSQL
Cloud Computing: AWS (Certified Cloud Practioner), EC2, S3, IAM, Lamda, RDS
Technologies: Git, Github, Singularity/Apptainer, Linux, Jupyter

WORK EXPERIENCE

Machine Learning Intern (4 Months)   **May 2024 – Present**
Simulation, Modelling and Synthetic Data Lab | St. John's, NL

- Implementing privacy-preserving techniques like differential privacy in a transformer-based generative machine learning model for synthetic financial data creation.
- Developing model architecture, optimizing codebase, and evaluating models on financial time series data.
- Researching transformer-based synthetic data fidelity, contributing to privacy-preserving model advancements.

Software Developer Intern   **May 2023 – Jan 2024**
DIAG (Data and Image Analysis Group) | St. John's, NL

- Engineered a Python module for SSH management, enabling key installation, remote access, and robust error handling.
- Automated the build and deployment pipeline for Jekyll-based websites, utilizing Cedar's computational resources for efficient building and consistent deployment on the MUN server.
- Added overlay images to Singularity containers, enhancing customization without altering base configurations.

Additional Experience
Testing and Invigilation Support | *Blundon Center | MUN, St. John's, NL*   **Sept. 2021 – Present**
Front-line Cook | *Montanas BBQ | St. John's, NL*   **May 2022 – April 2024**
Research Assistant | *School of Graduate Studies | MUN, St. John's NL*   **Sept. 2023 – Jan 2024**
Front-end Developer | *The Harris Centre | MUN, St. John's, NL*   **Sept. 2021 – Sept. 2022**

PROJECTS (Github)

AsbestosAware (In Progress) | *Python, Node.js, Express, MongoDB, React, HTML, CSS*
- Working with the Geography Department to develop an app showing asbestos locations for campus safety awareness

Full-Stack Stock-Trading game Webapp | *Node.js, MongoDB, JavaScript HTML, CSS, Bootstrap*
- Implemented user and admin registration processes with real time market dynamics fetched by a financial API
- Developed admin controls for game management and player features for trading and partaking in multiple games

Can't Stop Board Game | *Java, Swing*
- Led Java board game development with GUI, game mechanics, and documentation including UML diagrams.

Portfolio Website | *CSS, HTML, JavaScript, Bootstrap*

EXTRACURRICULAR ACTIVITIES

Hack Frost NL (*Sponsorship Team*) | *St John's, NL*   **Oct. 2022 - Present**
- Securing sponsorships from various companies and organizing hackathons and other tech-related events.

Honors and Awards

Summer Undergraduate Research Award (awarded to 19 students from Faculty of Science)   **April 2024**
York University CVR Summer School in Vision Science   **May 2024**
Summer Undergraduate Research Award (awarded to 20 students from Faculty of Science)   **April 2023**