Shrey Ghosh

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EXPERIENCE

Research Associate — Sep. 2022 – Present
University of Calgary | R, Excel — *Calgary, AB*
- Conducting research project on the computational analysis of Squamous Cell Carcinoma at the Bose Lab
- Currently doing background research on Squamous Cell Carcinomas and how to query squamous cell data
- Intend on using R to perform the analysis of Squamous Cell Data

Full Stack Developer — May 2022 – Present
Innovenium Technologies Inc. | React Native, React Web, HTML/CSS — *Calgary, AB*
- Programming of features and maintainance of the Innovenium App using React-native
- Implementing web components of the Innovenium platform using React-native web, HTML, CSS and Javascript
- Make key decisions regarding product roadmap, features in the Minimum Viable product and company direction

Machine Learning Research Associate — July 2021 – Aug. 2022
University of Calgary | R, SLURM, Excel — *Calgary, AB*
- Used R to build a machine learning pipeline using several LASSO regression models
- Identified significantly interacting genes and pathways of numerous cancers in the TCGA Database
- Successfully classified expression data as tumerous and non-tumerous using the SCOPE pipeline developed, proving SCOPE as an accurate and stable way of analysing expression data
- Wrote a 20-page paper and gave multiple presentations to faculty and students from the University of Calgary
- Presented virtually to the Calgary Youth Science Fair

PROJECTS

SCOPE Pipeline Melanoma Implementation | *R, SLURM* — May 2022 – Aug. 2022
- Modified the SCOPE pipeline upon the request of Dr. Weijia Cai from the Southern Illinois University School of Medicine for analysis of melanoma RNASeq data
- Analysis of melanoma RNASeq data using the SCOPE pipeline suggested the further study of a few interesting genes with respect to melanoma progression

BlackJack | *C++* — Jun 2022
- Developed a local multiplayer BlackJack game with an automated house using object oriented programming

Correlation Analysis of Demographics and Vaccination Rates | *R* — Feb. 2022 – Apr. 2022
- Selected by Youreka Canada to conduct a research project over a 10-week period
- Analyzed public vaccination data from the NIH to determine correlations between demographic characteristics and vaccination rates across the United States
- Determined that age and ethnicity of a group is statistically significant to their vaccination rates

ACHIEVEMENTS

Hypatia Mathematics Contest Distinction Award — Jun. 2022
The CENTRE for EDUCATION in MATHEMATICS and COMPUTING (CEMC) - University of Waterloo

Bronze Medal for SCOPE pipeline at Calgary Youth Science Fair — Apr. 2022
Calgary Youth Science Fair

Cayley Math Contest Distinction Award and School Champion — Feb. 2021
The CENTRE for EDUCATION in MATHEMATICS and COMPUTING (CEMC) - University of Waterloo

EDUCATION

Webber Academy — Exp. Jun 2023
Grade 12 Student — *Calgary, AB*

TECHNICAL SKILLS

Languages: Java, Python, C++, JavaScript, HTML/CSS, LaTeX, R
Frameworks: Git, React Native, React Native-web
Packages: Glmnet, WebGestaltR, TCGAbiolinks