

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 tumorous and non-tumorous 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