

# Aris Grout

## Data Scientist

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### Analytical Work Experience

#### Systems Analyst & Designer / Community Health IT

Sep 2018 - Present / PHSA, Burnaby BC

- . Gathered clinical requirements for provincial eWound electronic health records (EHR) system upgrades: facilitating user-group discussions and liaising with developers to launch new features.
- . Analyzed reported problems, designed corrective system logic, and worked with developers to test and deploy solutions.
- . Created our first self-paced eLearning module for clinicians learning the eWound EHR system.
- . Administered SQL database queries to compile business reports and automated their delivery to clinics using Powershell.

#### Research Associate / Cardiac Differentiation

Jan 2017 - Oct 2017 / SFU (Honors Degree), Burnaby BC

- . Researched, designed and performed a CRISPR-Cas9 mediated knock-out of a gene highly associated with lone atrial fibrillation in human induced pluripotent stem cells (hiPSCs).
- . Assisted the development of an in-house atrial-like cardiomyocyte differentiation kit; methods and procedures.
- . Performed DNA isolations, PCR amplifications, molecular cloning, fluorescence-activated cell-sorting (FACS), hiPSC transfections, and genomic analysis.
- . Wrote and defended an honours thesis featuring the CRISPR-Cas9 mediated gene knock-out.

#### Research Associate / Neural Differentiation

Sep 2015 - Apr 2016 / STEMCELL TECHNOLOGIES (Co-op), Vancouver BC

- . Designed and optimized experimental protocols to differentiate human stem cells (hiPSCs/ESCs) into neural cell types
- . Collected and graphed culture expansion data in Excel to track efficacy of differentiation procedures.
- . Analyzed differentiated state of cell cultures using fluorescence-activated cell sorting (FACS), immunostaining and RT-qPCR.
- . Presented weekly PowerPoints to colleagues; detailing experimental results, conclusions and follow-up.

### Project Management Experience

#### Executive Director / TEDxSFU

May 2018 - Apr 2019 / SFU Student Society, Vancouver BC

#### Co-President / SFU Dance Marathon (Nonprofit)

Jun 2015 - Aug 2016 / SFU Student Society, Burnaby BC

### Data Stack

#### / Wrangling:

PostgreSQL SQL Server API

Python • pandas

#### / Visualization:

Python • matplotlib • seaborn • plotly

#### / Modeling:

Python • tensorflow • apache spark

• scikit-learn • statsmodels

#### / Deployment:

Google Cloud AWS

Python • flask • streamlit

#### / Scripting:

Bash PowerShell

### Data Projects

/> **Research SNPit:** AI-generated summary of research. Unique to your genome.

/> **Flight Delay Prediction:** A random-forest model for predicting US flight delays.

/> **Banking Behavioral Clustering:** Unsupervised clustering and analysis of banking customers.

/> **English to French Translator:** Text-based NLP model applying an ensemble of RNNs.

### Education

**Hon. BSc / Molecular Biology & Biochemistry**  
2014 - 2018 / Simon Fraser University, BC

**Certificate / Genomics**  
2016 - 2018 / Simon Fraser University, BC

**Certificate / Innovation & Entrepreneurship**  
2016 - 2018 / Simon Fraser University, BC

### Certification

**Diploma / Data Science Full-Time Bootcamp**  
2021 - 2021 / Lighthouse Labs

**Associates / Project Management (CAPM)**  
2020 / Project Management Institute