Jenny Yang

5th Year Engineering Physics, UBC (Grad 2019)
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Work Experience:

Stanford University (Bioengineering Lab) – Research/Software Intern (June 2018 – Aug 2018)

- Participated in research to identify DNA sequence features that lead to good CRISPRa activity
- Processed data in **R**
- Created LASSO, Random Forest and Support Vector Machine models
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BC Cancer Agency (Genome Sciences Centre) – Research/Software Intern (May 2016 – Present)

- Performing machine learning algorithms in **Python**
- Configuring and utilizing deep learning frameworks (**Tensorflow, Theano**)
- Implementing, integrating, debugging and optimizing an autoencoder to determine and analyze the most predictive gene clusters in cancer classification
- Visualizing and presenting data (**ggplot**)
- Poster on autoencoder project won 3rd place at the International Conference of Physics Students (Aug. 2017)

Non-Invasive Neurostimulation Therapies Lab–Research/Software Intern (Sept 2016 – Present)

- Performing machine learning algorithms in **R**
- Implementing variable selection methods and machine learning classification algorithms to better understand and predict biomarkers for depression
- Developing scripts in **R** and **Python** to analyze and organize and visualize (**ggplot**) patient data
- Designed and developed a dynamic and informative website UI (**Javascript, HTML, CSS**) for the lab (ninet.ca)
- Data quality analyst and site administrator for NINET's (REDCap) CFRI and CAMH project servers (5 active projects)

BC Cancer Agency (Genome Sciences Centre) – Software Intern (August 2016 – Sept 2016)

- Participated in development efforts to establish data sharing infrastructure with the GA4GH database, to facilitate collaboration with others within the GSC and from other institutions
- Using **Python**, performed development, testing and configuration of a GA4GH reference server
- Loaded and validated genomic data within the reference server
- Assisted in creating documentation for new software and procedures

SMART Technologies – Software Test Intern (Jan 2016 – May 2016)

- With a team of 6 interns, created an Image Search add-on for the newest release of Notebook software, which has been downloaded by millions of users worldwide (**Javascript, HTML, CSS**)
- Within the LAB group, worked on stories in an agile development process with experienced developers
- Coded automated tests and frameworks (**Python, Robot Framework**) for front end UIs, back end APIs and everything in between
- Actively contributed to and participated in Nerf gun ambushes on other project sub-teams

Presentations:

Jenny Yang, Matthew Hill, Fidel Vila-Rodriguez, Dorian Aur. Improving Clinical Outcomes and Decreasing Unwanted Side-Effects of rTMS Treatment with a Shielding Device. UBC Department of Psychiatry Research Day, Vancouver, Canada. June 7, 2018.

Jenny Yang, Daniel Blumberger, Zafiris J Daskalakis, Colleen Northcott, Joe Tham, Raymond Lam, Jonathan Downar, Fidel Vila-Rodriguez. Machine Learning Predicts Response to rTMS in Depression. UBC Undergraduate Neuroscience Conference, Vancouver, Canada. January 25, 2018.

Jenny Yang, Jasleen Grewal, Steven Jones. Identifying Functional Clusters of Genes for Personalized Therapy in Medicine. The International Conference of Physics Students, Turin, Italy. August 7-14, 2017.

Jenny Yang, Daniel Blumberger, Zafiris J Daskalakis, Colleen Northcott, Joe Tham, Raymond Lam, Jonathan Downar, Fidel Vila-Rodriguez. Machine Learning Predicts Response to rTMS in Depression. UBC Department of Psychiatry Research Day, Vancouver, Canada. May 25, 2017.

Afifa Humaira, **Jenny Yang**, Katie Green, Nick Ainsworth, Marlon Danilewitz, Colleen Northcott, Daniel Blumberger, Jonathan Downar, Zafiris Daskalakis, Joe Tham, Raymond Lam, Fidel Vila-Rodriguez. Side Effects of rTMS in HFL vs. TBS Study for Major Depressive Disorder Treatment. UBC Undergraduate Neuroscience Conference, Vancouver, Canada. September 9, 2016.