

Heather Van Tassel

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KEY SKILLS

- Excellent written and verbal communication skills
- Ability to apply statistics and machine learning to drive business insights and problem-solve
- Adept with version control using Github and creating reproducible analyses

PROFESSIONAL SUMMARY

Languages/Tools	Python, R, CSS
Frameworks	Scikit Learn, Tidyverse, Pandas, Numpy, SciPy
Databases	MySQL, SQLite, PostgreSQL, NoSQL
Operating Platforms	Linux, Windows, Docker, Cloud Services (AWS, and Google Cloud)

EDUCATION

[Master's of Science, Data Science](#). University of British Columbia, Vancouver, BC. 2019

Course Projects available on <https://github.com/heathervant>:

- Reproducible 2-way ANOVA analysis of viral DNA on github using Docker and Make files
- Collaborative software package in R and Python for dataframe cleaning
- Collaborative R shiny app for analyzing qualitative and quantitative survey response data
- Deep learning and optimization of many types of models with keras and Scikit learn
- Database design and complex SQL queries
- Analysis pipeline development with github, R and python packages, dependency diagrams

Bachelor of Science, Integrated Science: **Biochemistry and Neuroscience**. University of British Columbia, Vancouver, BC. 2018

Exchange student, Physiology and Neuroscience: University of California San Diego. 2014- 2015

COURSE WORK

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|--|---------------------------------------|
| · Collaborative software development | Probability and regression |
| · SQL and database design | Biostatistics and Bayesian Statistics |
| · Supervised and Unsupervised Machine Learning | Feature and Model Selection |
| · Metabolic and Structural Biochemistry | Neuropsychopharmacology |

WORK EXPERIENCE

Data Scientist, Floka. Sept 2019-present

- Data analysis and exploration to help support business growth and improve user experience.
- Develop algorithms and recommendation systems for improved personalized user experience. Run correlations and regressions on users' data to provide insights for improved health behaviours.
- Deploy machine learning models on cloud servers. HIPPA compliance and data security expertise.

Data Scientist, E-comm 911. April-May 2019

- Business consultant to help improve data management strategy and employee engagement by creating a reproducible data integration pipeline from 4 departments for: 1) attrition analysis for analyzing factors affecting employee retention and 2) short-term absence classification model to predict whether employees will be absent based on internal performance and human Resources metrics.
- Present results to key stakeholders and collaborate with multiple departments to guide staffing model.

BC Children's Hospital BioBank. Research Assistant 7-Aug. 2017 + summer 2018

- Processed patient blood, tissue, and urine samples for researchers, data entry (powerchart), large database inventory management, clinical consenting with children, families, and women for over 12 studies. Ensured high quality sample processing, sample collection, written and verbal communication.
- Public health CIHR research grant project coordinator: "Giving patients and health care providers a voice in pediatric biobanking" managed ethics applications, organized meetings, planned community events, and created educational material for kids, teens and adults for focus groups (n=100) to then extract qualitative insights into how and why people would like to participate in pediatric biobanking.

Animal Genetics Intern, Food and Agriculture Organization of the UN. Rome, Italy Sept.-Dec 2016

- Designed and summarized educational [content](#) for promoting conservation of animal genetic diversity with over 5,000 views in the past 2 years.

Outreach Coordinator, Geering Up! Engineering and Science for Kids. UBC April-Aug 2016

- Communicated with multiple community members to bring camps to 14 different communities, 7 of which were aboriginal communities. Organized staff cultural awareness training, booked transportation, lodging, and scheduling logistics. Taught hands-on STEM activities and concepts to children age 7-16 in both workshops and camp settings to reach over 1000 children.

ACTIVITIES

Women in Data Science at UBC Ambassador and host	April 2019
Member, UBC Meditation club, UBC.	2017-present
TCPS-2 ethics certification	Nov 2016
Best Oral presentation: ISCI 422- Modelling synaptic transmission with Netlogo	April 2017
Varsity Athlete, University of British Columbia Track and Cross-country runner	2012-2014

PUBLICATIONS

Zaidi FN, Cicchini V, Kaufman D, Ko E, Ko A, Van Tassel H, Whitehead MC. Innervation of Taste Buds Revealed with Brainbow Labeling in Mouse. *Journal of Anatomy*. Dec. 2016

Van Tassel H, Vercauteren S, Tarling T. Giving patients, public, and health-care providers a voice in pediatric biobanking. *Journal of Biopreservation and Biobanking*- Under review. Dec. 2019