Gavin Hurd

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SUMMARY OF SKILLS

- Over 5 years of proven success in the application of statistical analysis and model development in the Biological sciences.
- Proficient in R (Statistics/Markdown), Python (Pandas/Numpy/SciKitLearn/SciPy), SQL, QGIS, MySql, CAD, and MariaDB.
- Excellent communication skills with experience presenting at a national conference and developing and delivering training seminars.

EDUCATION

Master of Data Science and Analytics   **Sept, 2023 - Present**
University of Calgary, Alberta

- 4.0 GPA.
- Actionable visualizations and analytics within R, Python, SQL, and Power BI environments.
- Development of big data applications using leading-edge industry practices
- Strong foundational knowledge in multiple linear regression, mathematical probability, and the mathematics underlying machine Learning.

Projects

- Developed and validated regression model to predict energy production by prosumers in Estonia to enable refined estimates of excess energy demand.
- Developed MongoDB database of Calgary traffic data with geospatial indices to allow identification of patterns and causes of traffic incidents.

Bachelor of Science, *Biology*   **Sept, 2012 - Dec, 2017**
University of British Columbia, B.C.

- 3.7 GPA.
- Courses included Introductory Molecular Biology, Fundamentals of Genetics, Introduction to Genomics, Genome Evolution, Cell Biology, Histology, Integral Calculus, and Matrix Algebra.
- Member of Varsity Rowing Team.

Projects

- Bioinformatics Research: Analyzed a poorly characterized gene sequence that genome-wide experiments had revealed to be involved in some biological processes, but had been the focus of few published reports. The sequence was analyzed using online databases and tertiary protein structure models to identify

known proteins with similar structures and underlying mRNA sequences in order to propose possible functions of the gene sequence.
- ○ Plasmid Construction: Analyzed, constructed, and screened a plasmid as part of a project to insert an expression reporter gene (green fluorescent protein). Successfully designed some aspects of the project, including the sequence of the PCR primer.

Awards/Scholarships
- ○ **Go Global International Learning Award,** UBC, Vancouver, B.C. (2015).
- ○ **Community Builder Entrance Scholarship,** UBC, Vancouver, B.C. (2012).
- ○ **Chancellor's Scholar,** UBC, Vancouver, B.C. (2012).
- ○ **Lawrence Hutchings Memorial Scholarship for Character and Citizenship,** (2012).

EMPLOYMENT EXPERIENCE

Resource Management Officer   **April, 2017- September, 2023**
Parks Canada, Lake Louise, Alberta
- Lead the end-to-end development of a multi-year habitat restoration project, including the permitting and the creation of a novel wildlife movement model based on conditional random-walk principles. The results were used to inform management objectives (e.g. the removal of 0.5_{km}^2 of dense tree stands).
- Coordinated the data collection, quality assessment & control, and database maintenance for a longitudinal study on human use of park infrastructure. Successfully increased the scope of the project two-fold without any loss of data quality.
- Managed a team of four over the course of a summer term; coordinated a staff training program, created and oversaw work objectives, and developed and implemented a scientific sampling study.
- Authored multiple written documents regarding the removal of an invasive species from lakes in Banff National Park. The documents included publicly distributed bulletins as well as protocols detailing the roles, responsibilities, and schedules of 40+ staff members involved in the project.
- Presented original research at the Making Roads Safer for Wildlife conference (2022)

OTHER ACHIEVEMENTS & CERTIFICATIONS

- ○ **Chemical Immobilization of Wildlife Certification,** Parks Canada, Banff, AB (2022).
- ○ **Incident Command Systems 200,** Response and Recovery, Lake Louise, AB (2021).
- ○ **98th percentile MCAT score,** Association of American Medical Colleges, (2016).
- ○ **Member of Varsity Rowing Team**, University of British Columbia. (2013)