Benjamin Furman

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Professional Summary

- Currently working in the academic and industry fields, I am a critically thinking, productive scientist with excellent time management skills

- An evolutionary biologist with over 8 years of experience performing genomic analyses to understand how fundamental aspects of biology impact genome evolution

- A skilled bioinformatician currently developing tools for the field of biotechnology, which aid in the discovery of novel therapeutics

Professional Experience

Independent Contractor – Bioinformatics, Data Science

Adapsyn Biosciences   **2019–current**

- Developed custom python packages for large-scale genome mining

- Facilitated discovery of genome-derived therapeutics

- Executed general data science tasks and statistical analyses

- Performed targeted literature reviews

▷ Resulted in several analytical tools that will be implemented company-wide for continued efforts in drug discovery

Postdoctoral Research Fellow – Genome Evolution

University of British Columbia   **2018–current**

- Conducted multi-population whole genome analyses assessing recombination rate variation

- Demonstrated utility of a novel analytical method to understand the interaction between sex-biased gene expression and selection

- Lab-wide bioinformatic and statistical analyses and assistance for co-workers

▷ Producing 3 first author publications (2 in review, 1 in prep) within 2 years

Education

Ph.D., Evolutionary Genomics   2012–2018
McMaster University, transferred from M.Sc. with distinction   Hamilton, ON, Canada

B.Sc., Specialization in Animal Biology   2008–2012
University of Alberta, graduated with distinction, first class standing   Edmonton, AB, Canada

Skills

Programming

- Proficient in python, R, bash, and comfortable in perl, for bioinformatic analyses, and big data manipulation
- Adept in tidyverse and base R for analyses, data management, and visualization
- Project management, version control, and documentation with Git, GitHub, LaTeX, and Markdown
- Code deployment on unix clusters and cloud computing (Google Cloud, AWS)
- App development with R/Shiny for visualization of data trends and collecting user input
- Dedicated to best practices and modern techniques

Analysis

- Skilled in model fitting (linear, generalized, and mixed model), knowledgeable on parametric and non-parametric statistics
- Deep understanding of genome and transcriptome assembly (Illumina, RAD/GBS, 10X) and analysis
- Experienced with GWAS, parent–offspring inheritance, evolutionary, and population genetic analyses
- Capable of DNA/RNA extraction, PCR, Sanger sequence prep and analysis

Communication, Mentorship, Teamwork

- Involved in coordination of international collaborations for fieldwork in remote and foreign locations
- Proficient in scientific writing and presentation, with 9 first, 3 second authored publications
- Mentored 5 undergraduate and 2 graduate students
- Experience with static website development using Jekyll
- Proficient in Microsoft Office suite and G-Suite