Sadie Lee

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Education

University of British Columbia Vancouver, BC, CA
Bachelor of Arts in Cognitive Systems; Minor in Data Science *2022 – 2026*
Coursework: Statistical Inference, Databases in Data Science, Applied Machine Learning, Programming and Algorithms, Symbolic Logic, Designing Cognitive Systems, Informatics

Experience

Undergraduate Intern - Mayo Clinic Platform Summer 2024
Mayo Clinic
- Built a 3D classification model and 3D segmentation model with MR prostate DICOM images to develop and test an end-to-end imaging workflow – PyTorch, TorchIO, torchvision, Nibabel, Pydicom, Sklearn, Linux OS
- Wrote queries in SQL to identify cohorts for potential Accelerate imaging customers
- Created external and internal-facing dashboards with Power BI and DAX for market intelligence and utilization
- Developed technical documentation and process guides
- Parsed clinical notes to extract diagnoses using Regex

Research Assistant May 2023 – April 2024
BC Children's Hospital Research Institute / UBC Faculty of Medicine
- Implemented scripts to automate collection and analysis for time in range data – R, tidyverse
- Led focus groups to gain user feedback on new app features for a study investigating the effects of digital peer support for adults with type 1 diabetes
- Wrote a manuscript detailing the co-design and development process of the mobile application

Software Developer Summer 2023
UBC Emerging Media Lab (EMLx)
- Designed and implemented a web app for self-guided forest bathing – TypeScript, React, Node.js, MongoDB
- Integrated the Mapbox API for location-based augmented reality in Unity and Needle Engine

Deep Learning Researcher March – Dec. 2023
UBC Multifaceted Innovations in Neurotechnology
- Classified brain tumor MR images with CNNs – PyTorch
- Conducted literature reviews to explore interaction between humans and reinforcement learning agents

Research

Topological Data Analysis and Interpretability of 3D-Convolutional Neural Networks
Accepted by 2024 AAAI Undergraduate Consortium

Formalizing Ethical Design in Prostate Cancer Image Analysis: A Preliminary Case Study
Accepted by 2024 IEEE MIT Undergraduate Research Technology Conference

Technical Skills

Languages: Python, R, SQL, C#, Javascript, Typescript, LaTeX, HTML, DAX
Technologies & Environments: Git, Jupyter, Unity, Power BI, MongoDB, React, Next.js, Node.js, REDCap, Windows, Linux
Libraries: pandas, numpy, Matplotlib, PyTorch, torchvision, NiBabel, Pydicom, Sklearn, NetworkX, tidyverse, D3.js

Leadership and Volunteering

VP External, Ballet Teacher Sept. 2023 – Present
UBC Ballet
- Coordinating the production of events, handling logistics and external communication, and managing budgets
- Teaching weekly intermediate-advanced ballet classes to university students

Data Science Consultant Jan. 2023 – Apr. 2023
180 Degrees Consulting
- Designed and implemented a dashboard in Power BI using KPIs to evaluate impact for a non-profit organization
- Conducted market research and competitive analysis