Mike Jarrett

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SUMMARY

- Over 7 years of experience working in academic labs in multiple disciplines
- Skilled at managing collaborations between imaging scientists, MRI technologists and clinicians
- Expertise in MRI image processing and analysis

SKILLS

DATA ANALYSIS

Extensive experience performing data analysis in object-oriented, scripting, relational database and spreadsheet environments • Expert in static and interactive data visualization in Python and Matlab

PROGRAMMING

Python (including Django, MatPlotLib and NumPy) • Unix • Matlab • SQL • LaTeX • Git (github.com/mjarrett)

MEDICAL IMAGING

Certified to operate RespirAct^{TM} gas flow controller for use during MRI imaging • Expert at image manipulation & analysis using NiPy, FSL & Matlab • Experienced with NIfTI, DICOM & PAR/REC image filetypes

EDUCATION

UNIVERSITY OF VICTORIA

M.Sc. in Physics

2011 | Victoria, BC

Thesis: "Prospects for the measurement of the Higgs CP structure at ATLAS in $H \rightarrow 4l$ decays"

UVic Graduate Award

UVic Teaching Assistantship

UNIVERSITY OF GUELPH

B.Sc (Honours) in Physics

2007 | Guelph, ON

Honours thesis: "A high precision half-life measurement of ^{26}Na at SCEPTAR"

Dean's Honour Roll (2004-2007)

Copernicus Scholarship (2004)

NSERC USRA Award (2006, 2007)

EXPERIENCE

UBC DEPARTMENT OF PEDIATRICS | MRI Data Analyst

2015 - currrent | Supervisor: Dr. A. Rauscher

- Collaborated with imaging scientists, MRI technologists and medical researchers to develop, test and implement novel MRI techniques such as susceptibility weighted imaging, myelin water imaging and FLAIR[2]
- Led training sessions in version control, Python, and data visualization
- Engaged in knowledge translation by presenting research at international conferences, and organizing and chairing weekly group meetings for UBC MRI physicists.
- Managed computer systems and accounts in the Rauscher lab for staff and student researchers

UBC MRI RESEARCH CENTRE Research Assistant

2012 - 2015 | Supervisor: Dr. A. Rauscher

- Analyzed MRI data for multiple studies focusing on traumatic brain injury and multiple sclerosis
- Supported co-workers as the local expert on diffusion imaging analysis, Unix scripting and several imaging analysis software tools such as FSL and FreeSurfer
- Coordinated subject recruitment and data collection for multiple projects
- Set up and maintained the research center's Github account

UNIVERSITY OF VICTORIA | Research Assistant

2008 - 2011 | Supervisor: Dr. J. Albert

- Conducted a detailed study of simulated data to anticipate the ability of the ATLAS detector at the Large Hadron Collider to measure the properties of new fundamental particles
- Presented original research at the Winter Nuclear and Particle Physics Conference (2009), as well as at ATLAS Canada and ATLAS UVic meetings
- Monitored data quality and detector performance of the live ATLAS data stream in control room and remote shifts

UNIVERSITY OF GUELPH | Undergraduate Research Assistant

2007, 2008 | Supervisor: Dr. R. L. Brooks

- Responsible for daily operation and maintenance of high precision cavity ring-down spectroscopy experiment, including dielectric mirrors, Nd:YAG laser system, pressurized gasses and glassware
- Performed a detailed study of strongly forbidden Rydberg states in unstable molecules

MISCELLANEOUS

- Successfuly completed open online courses in Data Science in Python (2016); Data Visualization in Python (2017); Relational Databases (2010)
- Outreach volunteer with HUB's Bike to Work Week
- Volunteer with BEST's Bicycle Valet program