

Eric Barnhill, PhD

EMAIL ericbarnhill@protonmail.ch
WEBSITE <https://www.ericbarnhill.com>
LINKEDIN <https://www.linkedin.com/in/eric-barnhill-29b01b154/>
GITHUB <http://github.com/ericbarnhill>
RESEARCHGATE https://www.researchgate.net/profile/Eric_Barnhill
NATIONALITY American

Summary

Medical imaging researcher with six years of experience developing practical, clinically-oriented solutions for challenges in statistical modeling, machine learning, and software engineering. Wide-ranging experience with statistical analysis methods and statistical programming. Seeking a data scientist position in the health tech industry.

Experience

Research Scientist, Dept. of Radiology, Charité Medical University, Berlin, Germany, *2015-present*

Statistical analyses of wide range of data incl. longitudinal study designs, MRI and ultrasound images, mass cytometry output. Developed original methodologies and coded software in R, JAGS, Stan, Python, Java, Matlab, Keras. Worked with Bayesian statistics, sparse regularization, convolutional neural networks. Mentoring and advisory on statistical and image processing aspects of research projects.

Confidence in Concept Research Fellow, Dept. of Informatics, University of Edinburgh, UK, *2015*

Awarded a six-month fellowship to develop patent-protected image processing techniques from PhD thesis into a high performance medical imaging application. Programming in Java, C++ and Halide.

PhD Researcher, Clinical Imaging Facility, University of Edinburgh, UK, *2011-2015*

Published a wide range of statistical analyses of data including: brain structural MRI, mapping of leg muscle damage, X-ray test-retest accuracy, and analysis of conductor baton movements. Use of Matlab, Java, R.

Previous career as concert pianist and children's music therapist, *1998-2011*

Skills

Programming: Java (Member with committer status, Apache Software Foundation), R, Matlab, Python, Keras, JAGS, Stan, , C++, CUDA, OpenCL, Halide

Scientific: Bayesian statistical analysis; Image and signal processing; Sparse regularization and compressive sensing; Convolutional neural networks; Linear programming; Scientific writing and publishing

Education

PhD in Medical Physics, University of Edinburgh, UK, *2011-2015*

M. Mus in Piano Performance, The Juilliard School, New York, USA, *1995-1998*

BA High Honors, Haverford College, Philadelphia, USA, *1992-1995*