Brian T. Quinn, Ph.D.

DATA SCIENTIST · NEUROSCIENTIST

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Creative problem solver specializing in data wrangling, data analysis and data visualization.

Experience

THE DATA INCUBATOR   *New York, NY*
DATA SCIENTIST FELLOW   *Jun 2015-Aug 2015*
- Selected from over a thousand applicants to participate in a rigorous 2 month fellowship
- Completed numerous projects involving web scraping, SQL, NLP, machine learning, and MapReduce

NEW YORK UNIVERSITY   *New York, NY*
PH.D. CANDIDATE   *Sep 2006-May 2013*
- Analyzed large human electrophysiology datasets consisting of more than 500,000 samples
- Developed machine learning software to automatically detect abnormal brain tissue in MRIs
- Led laboratory sections of 30 students and held regular lectures to class sizes of 80-100 students
- Published and prfesented results of psychophysical and electrophysiological experiments
- Created web visualization solutions to facilitate long distance brainstorming
- Wrote software to implement Monte Carlo methods, temporal clustering, and statistical tests of time-series data

MARTINOS CENTER FOR BIOMEDICAL IMAGING/HMS/MIT   *Charlestown, MA*
RESEARCH TECHNICIAN   *May 2002-Aug 2005*
- Worked with a team of researchers and developers to create and support FreeSurfer software (used by 1,000s of researchers)
- Developed software solutions for projects to quantify and analyze cortical and subcortical structures of the human brain
- Led training and supported over 200 international researchers through phone, email, and site visits
- Authored more that 20 peer-reviewed articles in scientific journals

WEILL MEDICAL COLLEGE OF CORNELL UNIVERSITY   *New York, NY*
IMAGE DATA ANALYST   *Aug 2005-Aug 2006*
- Consulted researchers on experimental design using MRI
- Analyzed image datasets for five pediatric studies

Education

New York University   *New York, NY*
PH.D. IN NEURAL SCIENCE   *May 2013*
- Focus: Computational Neuroscience, Dynamic Systems Analysis, Machine Learning

Harvard University   *Cambridge, MA*
NONDEGREE PROGRAM   *Jan 2004*
- Focus: Biostatistics, Neurophysiology

University of Iowa   *Iowa City, IA*
B.S.E. IN BIOMEDICAL ENGINEERING   *May 2001*
- Focus: Computer Science, Electrical engineering, Statistics

Technical Skills & Interests

Programming/Scripting Languages	Python, R, Matlab, MapReduce/Hadoop, SQL, Javascript, HTML5, C/C++, bash/tcsh, LaTeX
Subject Matter Interests	Data Analysis, Machine Learning, Recommendation Systems
Modeling & Analysis	Predictive, Nonlinear, Neural Networks, Data Mining
Awards & Publications	NeuroImage Top Cited Article 2006-2010, Author of 36 Peer-Reviewed Articles
Interests & Miscellaneous	Teaching, Tutoring, Basketball, Canoeing NYC Waterways

Volunteering

The Fortune Society   *Queens, NY*
TEACHER AND TUTOR   *Dec. 2014 - Present*
- Taught and privately tutored math for formerly incarcerated individuals.

North Brooklyn Community Boathouse   *Brooklyn, NY*
CANOE INSTRUCTOR & STEERING MEMBER   *Jul 2014-Present*
- Supervised the expansion of canoe trips by 50% and the addition of educational programming
- Managed the budget, organization, and maintenance of canoe services for over 300 members

Publications

PUBLICATION HIGHLIGHTS

Intracranial cortical responses during visual-tactile integration in humans
Quinn BT, Carlson C, Doyle W, Cash S, Devinsky O, Spence C, Halgren E & Thesen T
Journal of Neuroscience 2014

An automated labeling system for subdividing the human cerebral cortex on MRI scans into gyral based regions of interest
Desikan RS, Ségonne F, Fischl B, Quinn BT, Dickerson BC, Blacker D, Buckner RL, Dale AM, Maguire RP, Hyman BT, Albert MS, Killiany RJ
Neuroimage 2006

Cortical feature analysis and machine learning improves detection of "MRI-negative" focal cortical dysplasia
Ahmed B, Brodley C, Blackmon K, Kuzniecky R, Barash G, Carlson C, Quinn BT, Doyle W, French J, Devinsky O, Thesen T
Epilepsy & Behavior 2015

Thickness of ventromedial prefrontal cortex in humans is correlated with extinction memory
Milad MR, Quinn BT, Pitman RK, Orr SP, Fischl B, Rauch SL
PNAS 2005

ADDITIONAL PUBLICATIONS

Cortical thickness abnormalities associated with dyslexia, independent of remediation status	Neuroimage Clinical 2014
Functional neuroimaging abnormalities in idiopathic generalized epilepsy	Neuroimage Clinical 2014
Structural brain imaging in children and adolescents following prenatal cocaine exposure: preliminary longitudinal findings	Developmental Neuro 2014
Septal nuclei enlargement in human temporal lobe epilepsy without mesial temporal sclerosis	Neurology 2013
Default mode network abnormalities in idiopathic generalized epilepsy	Epilepsy & Behavior 2012
Individualized localization and cortical surface-based registration of intracranial electrodes	Neuroimage 2011
Individual differences in verbal abilities associated with regional blurring of the left gray and white matter boundary	Journal of Neuroscience 2011
Structural evidence for involvement of a left amygdala-orbitofrontal network in subclinical anxiety	Psychiatry Research 2011
Abnormalities of cortical thickness in postictal psychosis	Epilepsy & Behavior 2011
Hyperfamiliarity for faces	Neurology 2010
Prolonged institutional rearing is associated with atypically large amygdala volume and difficulties in emotion regulation	Developmental Science 2010
Impact of breast milk on intelligence quotient, brain size, and white matter development	Pediatr Res 2010
Regional white matter volume differences in nondemented aging and Alzheimer's disease	Neuroimage 2009
The effect of early human diet on caudate volumes and IQ	Pediatric Research 2008
Detection of cortical thickness correlates of cognitive performance: Reliability across MRI scan sessions, scanners, and field strengths	Neuroimage 2008
A technique for the deidentification of structural brain MR images	Human Brain Mapping 2007
Abnormal cortical folding patterns within Broca's area in schizophrenia: evidence from structural MRI	Schizophrenia Research 2007
Volumetric cerebral characteristics of children exposed to opiates and other substances in utero	Neuroimage 2007
Feasibility of multi-site clinical structural neuroimaging studies of aging using legacy data	Neuroinformatics 2007
Regional cortical thickness matters in recall after months more than minutes	Neuroimage 2006
Selective increase of cortical thickness in high-performing elderly—structural indices of optimal cognitive aging	Neuroimage 2006
Neuroimaging H.M.: a 10-year follow-up examination	Hippocampus 2006
Meditation experience is associated with increased cortical thickness	Neuroreport 2005
Effects of age on volumes of cortex, white matter and subcortical structures	Neurobiology of Aging 2005
Cortical volume and speed-of-processing are complementary in prediction of performance intelligence	Neuropsychologia 2005
Size does matter in the long run: hippocampal and cortical volume predict recall across weeks	Neurology 2004
Sequence-independent segmentation of magnetic resonance images	Neuroimage 2004