

# BRIAN T. QUINN, PHD

Brooklyn, NY, 11222 • [btquinn@gmail.com](mailto:btquinn@gmail.com) • 347.604.2921 • [briantquinn.com](http://briantquinn.com)

---

## RELEVANT EXPERIENCE

### THE DATA INCUBATOR, *Data Scientist Fellow*

Jun 2015-Aug 2015

- Selected from over a thousand applicants to participate in a rigorous two-month fellowship
- Completed numerous projects involving web scraping, SQL, NLP, machine learning, and MapReduce

### NEW YORK UNIVERSITY, *PhD*

Sep 2006-May 2013

- Analyzed large human electrophysiology datasets consisting of more than 500,000 samples
- Published and presented results of psychophysical and electrophysiological experiments
- Created novel visualization solutions to facilitate long distance brainstorming
- Developed machine learning software to automatically detect abnormal brain tissue in MR images
- Wrote software to implement Monte Carlo methods and temporal clustering procedures for statistical tests of time-series data collected at high temporal resolution (30kHz)
- Led laboratory sections of 30 students and presented lectures to class sizes of more than 80 students

### MARTINOS CENTER FOR BIOMEDICAL IMAGING/HMS/MIT, *Research Technician*

May 2002-Aug 2005

- Worked with a team of researchers and developers to create and support FreeSurfer software
- Trained and supported over 200 international researchers through phone, email, and site visits
- Traveled to research sites to install software, train staff, and present methods to new users
- Authored software for various projects to study and quantify cortical and subcortical structures of the human brain

### WEILL MEDICAL COLLEGE OF CORNELL UNIVERSITY, *MR Image Analyst*

Aug 2005-Aug 2006

- Advised researchers on experimental design using MRI
- Analyzed image datasets for numerous pediatric studies

## EDUCATION

### NEW YORK UNIVERSITY

**Ph.D.** in Neural Science

Completed May 2013

Coursework: linear algebra, dynamic systems analysis, machine learning, statistics

### HARVARD UNIVERSITY

Completed Jan 2004

Coursework: neurobiology, biostatistics

### UNIVERSITY OF IOWA

**B.S.E.** Biomedical Engineering with Electrical Engineering concentration

Completed May 2001

Coursework: electrical engineering, computer science, statistics

## RELATED EXPERIENCE

### NORTH BROOKLYN COMMUNITY BOATHOUSE, *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

### CORTECHS LABS INC., *Research consultant*

May 2003-Aug 2005

- Consulted with clients on data quality and data analysis improvements
- Conducted efficient data processing and analysis for MRI studies

### UNIVERSITY OF IOWA HOSPITAL /MRI IMAGING CENTER, *Research assistant*

Jan 2001-May 2002

- Designed program to attenuate noise produced by MR gradients in *functional* MRI speech studies
- Developed a MRI simulator program used for training physicians and students

## TECHNICAL SKILLS & INTERESTS

Programming/Scripting Languages	:	Python, Matlab, R, SQL, Javascript, HTML5, C/C++, bash/tcsh
Subject Matter Interests	:	Data analysis, machine learning, recommendation systems
Modeling & Analysis	:	Predictive, nonlinear, neural networks, data mining
Awards	:	NeuroImage Top Cited Article 2006-2010
Interests & Miscellaneous	:	Teaching, tutoring, cycling, basketball, canoeing NYC waterways

## 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. *The Journal of Neuroscience*. 2014 Jan 1.
- ∞ **NeuroImage Top Cited Article 2006-2010: 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 Jul
- ∞ **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 Jul
- ∞ **Thickness of ventromedial prefrontal cortex in humans is correlated with extinction memory.** Milad MR, Quinn BT, Pitman RK, Orr SP, Fischl B, Rauch SL. *Proceedings of the National Academy of Sciences*. 2005 Jul 26;102(30):10706-11.

## ADDITIONAL PUBLICATIONS

- 5 **Individualized localization and cortical surface-based registration of intracranial electrodes.** Dykstra AR, Chan AM, Quinn BT, Zepeda R, Keller CJ, Cormier J, Madsen JR, Eskandar EN, Cash SS. *Neuroimage*. 2011 Nov 28.
- 6 **Individual differences in verbal abilities associated with regional blurring of the left gray and white matter boundary.** Blackmon K, Halgren E, Barr WB, Carlson C, Devinsky O, DuBois J, Quinn BT, French J, Kuzniecky R, Thesen T. *J Neurosci*. 2011 Oct 26;31(43):15257-63.
- 7 **Structural evidence for involvement of a left amygdala-orbitofrontal network in subclinical anxiety.** Blackmon K, Barr WB, Carlson C, Devinsky O, Dubois J, Pogash D, Quinn BT, Kuzniecky R, Halgren E, Thesen T. *Psychiatry Res*. 2011 Jul 29
- 8 **Abnormalities of cortical thickness in postictal psychosis.** DuBois JM, Devinsky O, Carlson C, Kuzniecky R, Quinn BT, Alper K, Butler T, Starner K, Halgren E, Thesen T. *Epilepsy Behav*. 2011 Jun;21(2):132-6.
- 9 **Hyperfamiliarity for faces.** Devinsky O, Davachi L, Santchi C, Quinn BT, Staresina BP, Thesen T. *Neurology*. 2010 Mar 23;74(12):970-4.
- 10 **Prolonged institutional rearing is associated with atypically large amygdala volume and difficulties in emotion regulation.** Tottenham N, Hare TA, Quinn BT, McCarry TW, Nurse M, Gilhooly T, Millner A, Galvan A, Davidson MC, Eigsti IM, Thomas KM, Freed PJ, Booma ES, Gunnar MR, Altemus M, Aronson J, Casey BJ. *Dev Sci*. 2010 Jan 1;13(1):46-61.
- 11 **Impact of breast milk on intelligence quotient, brain size, and white matter development.** Isaacs EB, Fischl BR, Quinn BT, Chong WK, Gadian DG, Lucas A. *Pediatr Res*. 2010 Apr;67(4):357-62.
- 12 **Regional white matter volume differences in nondemented aging and Alzheimer's disease.** Salat DH, Greve DN, Pacheco JL, Quinn BT, Helmer KG, Buckner RL, Fischl B. *Neuroimage*. 2009 Feb 15;44(4):1247-58.
- 13 **The effect of early human diet on caudate volumes and IQ.** Isaacs EB, Gadian DG, Sabatini S, Chong WK, Quinn BT, Fischl BR, Lucas A. *Pediatr Res*. 2008 Mar;63(3):308-14.
- 14 **Detection of cortical thickness correlates of cognitive performance: Reliability across MRI scan sessions, scanners, and field strengths.** Dickerson BC, Fenstermacher E, Salat DH, Wolk DA, Maguire RP, Desikan R, Pacheco J, Quinn BT, Van der Kouwe A, Greve DN, Blacker D, Albert MS, Killiany RJ, Fischl B. *Neuroimage*. 2008 Jan 1;39(1):10-8.
- 15 **A technique for the deidentification of structural brain MR images.** Bischoff-Grethe A, Ozyurt IB, Busa E, Quinn BT, Fennema-Notestine C, Clark CP, Morris S, Bondi MW, Jernigan TL, Dale AM, Brown GG, Fischl B. *Hum Brain Mapp*. 2007 Sep;28(9):892-903.
- 16 **Abnormal cortical folding patterns within Broca's area in schizophrenia: evidence from structural MRI.** Wisco JJ, Kuperberg G, Manoach D, Quinn BT, Busa E, Fischl B, Heckers S, Sorensen AG. *Schizophr Res*. 2007 Aug;94(1-3):317-27.
- 17 **Volumetric cerebral characteristics of children exposed to opiates and other substances in utero.** Walhovd KB, Moe V, Slinning K, Due-Tønnessen P, Bjørnerud A, Dale AM, van der Kouwe A, Quinn BT, Kosofsky B, Greve D, Fischl B. *Neuroimage*. 2007 Jul 15;36(4):1331-44.
- 18 **Feasibility of multi-site clinical structural neuroimaging studies of aging using legacy data.** Fennema-Notestine C, Gamst AC, Quinn BT, Pacheco J, Jernigan TL, Thal L, Buckner R, Killiany R, Blacker D, Dale AM, Fischl B, Dickerson B, Gollub RL. *Neuroinformatics*. 2007 Winter;5(4):235-45.
- 19 **Regional cortical thickness matters in recall after months more than minutes.** Walhovd KB, Fjell AM, Dale AM, Fischl B, Quinn BT, Makris N, Salat D, Reinvang I. *Neuroimage*. 2006 Jul 1;31(3):1343-51.
- 20 **Selective increase of cortical thickness in high-performing elderly—structural indices of optimal cognitive aging.** Fjell AM, Walhovd KB, Reinvang I, Lundervold A, Salat D, Quinn BT, Fischl B, Dale AM. *Neuroimage*. 2006 Feb 1;29(3):984-94.
- 21 **Neuroimaging H.M.: a 10-year follow-up examination.** Salat DH, van der Kouwe AJ, Tuch DS, Quinn BT, Fischl B, Dale AM, Corkin S. *Hippocampus*. 2006;16(11):936-45.
- 22 **Meditation experience is associated with increased cortical thickness.** Lazar SW, Kerr CE, Wasserman RH, Gray JR, Greve DN, Treadway MT, McGarvey M, Quinn BT, Dusek JA, Benson H, Rauch SL, Moore CI, Fischl B. *Neuroreport*. 2005 Nov 28;16(17):1893-7.
- 23 **Effects of age on volumes of cortex, white matter and subcortical structures.** Walhovd KB, Fjell AM, Reinvang I, Lundervold A, Dale AM, Eilertsen DE, Quinn BT, Salat D, Makris N, Fischl B. *Neurobiol Aging*. 2005 Oct;26(9):1261-70; discussion 1275-8.
- 24 **Cortical volume and speed-of-processing are complementary in prediction of performance intelligence.** Walhovd KB, Fjell AM, Reinvang I, Lundervold A, Fischl B, Salat D, Quinn BT, Makris N, Dale AM. *Neuropsychologia*. 2005;43(5):704-13.
- 25 **Size does matter in the long run: hippocampal and cortical volume predict recall across weeks.** Walhovd KB, Fjell AM, Reinvang I, Lundervold A, Fischl B, Quinn BT, Dale AM. *Neurology*. 2004 Oct 12;63(7):1193-7.
- 26 **Sequence-independent segmentation of magnetic resonance images.** Fischl B, Salat DH, van der Kouwe AJ, Makris N, Ségonne F, Quinn BT, Dale AM. *Neuroimage*. 2004;23 Suppl 1:S69-84.