BENJAMIN E. SHANAHAN

Class of 2017, Sc. B. Neuroscience Candidate, Brown University
Class of 2013, Boston Latin School
Curriculum Vitae   November 2016

Contact Information

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Work Experience

2016 - Present	**Research Assistant** BrainGate, Brown University, Providence, RI Implemented Kalman filter in closed-loop auto-updating brain-computer interface (BCI) calibration system. Honors thesis research in idle state detection in BCIs. Supervisors: Dr. Leigh Hochberg & Dr. David Brandman
2015 - Present	**Research Assistant** Omarlab, Brown University, Providence, RI Analyzed shape of brain rhythms in running rats to evaluate usefulness as analytical metric. Work on figures and logic for first-author journal article. Developed Matlab toolbox for shape analysis. Shadowed epileptologist at Rhode Island Hospital. Supervisor: Dr. Omar Ahmed
2014 - Present	**Matlab Consultant** Burwell Lab, Brown University, Providence, RI Write desired Matlab code for analyses and/or data processing. Attend lab meetings. Supervisor: Dr. Rebecca Burwell
Summer 2014, 2013	**Research Assistant** Cashlab, Massachusetts General Hosp., Boston, MA Developed affordable OpBox rat operant conditioning chamber with Dr. Eyal Kimchi. Developed Semiology Diagnostic Tool to objectively diagnose region of seizure onset and settle conflicts during surgical meetings. Developed Matlab code to detect high-frequency oscillations in epilepsy data. Supervisors: Dr. Sydney Cash & Dr. Brandon Westover
Summer 2012	**Tech Apprentice** Human Resources, State Street Corp., Quincy, MA Summer intern in the Flexible Work Department. Documented, troubleshooted, maintained, & analyzed data from internal FlexTrax website. Designed and programmed time-saving macro for pulling reports in Visual Basic. Helped solve user issues, fix bugs, & document FlexTrax web tool. Manager: Chris Siclari

Honors & Awards

2015	**Matthew Siravo Undergraduate Award in Epilepsy**	Providence, RI
2013	**Campbell Medal**	Boston, MA
2013	**T. Vincent Learson Scholarship**	Boston, MA
2013	**Horace M. Chadsley '14 Scholarship**	Boston, MA
2012	**National Honor Society**	Boston, MA
2010-12	**Francis Gardner Prize for Excellence in Modern Studies**	Boston, MA

Abstracts

2015	**Society for Neuroscience** — Chicago *OpBox: Open-source development of customized and cost-effective hardware and software for behavioral neurophysiology.* Brian F. Coughlin, **Benjamin E. Shanahan**, Giovanni Piantoni, Sydney S. Cash, Eyal Y. Kimchi.
2014	**American Epilepsy Society** — Washington, DC *Human Single Neuron Correlates Of High Frequency Oscillations During Seizures.* Omar J. Ahmed, Mark A. Kramer, Jason S. Naftulin, **Benjamin Shanahan**, Emad N. Eskandar, Rees Cosgrove, N. Stevenson Potter, Andrew Blum, Leigh Hochberg, Sydney S. Cash.

Skills & Interests

Code	Advanced knowledge of object-oriented programming techniques in Matlab, Python, ActionScript 3, Java. Advanced knowledge of web design and maintenance.
Computers	Advanced knowledge of Adobe Software Suite, Microsoft Office. Advanced knowledge of troubleshooting hardware & software issues in Windows and Linux systems.
Interests	Electronic music composition and synthesis, 3D graphics generation and graphic design, video editing and compositing in Adobe software, design and construction of circuits and physical computing (Arduino and Teensy platforms).
Language	Fluent in English; French conversational, reading, and writing skills; Spanish reading and writing skills; study of Latin
Personal	Highly organized, motivated, responsible, and resourceful. Team leader and collaborator. Perseverant and committed to projects. Creative and efficient problem solver. Not afraid to ask for help when necessary. Able to self-teach new concepts quickly and effectively.