Benjamin E. Shanahan

Class of 2017, Sc. B. Honors Neuroscience Candidate, Brown University
Class of 2013, Boston Latin School
Curriculum Vitae December 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
	Teach colleagues about implementation of various Matlab techniques for analyses and 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 to educate future administrators on how to use the 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

Activities

2015 - Present	**Artbeat** Cofounder of Artbeat, a student group focused on fostering Brown's artistic community. Artbeat runs biweekly art workshops and events where we teach different artistic techniques to any and all who are interested (www.anartbeataway.org).
2016 - Present	**UAV Club** Member of the UAV club at Brown, where we build and fly unmanned aerial vehicles (drones). We work as a group, building and teaching each other about the construction, electronics, and programming involved in these vehicles.
2014 - 2015	**WBRU** Disc-Jockey and production intern at 95.5 WBRU (radio station).
2013 - 2014	**IEEE** Worked to develop a maze-solving robot intended for a micro-mouse competition. Taught peers about Arduino prototyping system and coding.

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. Able to effectively communicate, explain, and teach difficult concepts to peers and colleagues.