CURRICULUM VITAE 2020

JAMES J. S. NORTON

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EDUCATION

Ph.D. in Neuroscience, University of Illinois – Urbana, IL **December 2017**

- Dissertation topic: *Steady-state visual evoked potentials (SSVEPs) and their application to brain-computer interfaces (BCIs)*
- Advised by Timothy Bretl, Ph.D.

M.S. in Electrical and Computer Engineering, University of Illinois – Urbana, IL **May 2019**

- Thesis topic: *Applications of sequential hypothesis testing to the development of non-invasive brain-computer interfaces*
- Advised by Timothy Bretl, Ph.D. and P. Scott Carney, Ph.D.

B.S. in Psychology, University of Florida – Gainesville, FL **2010**

Mainland High School – Daytona Beach, FL **2001**

RESEARCH AND PROFESSIONAL EXPERIENCE

Research Scientist – Department of Veterans Affairs, National Center for Adaptive Neurotechnologies, Stratton VA Medical Center – Albany, NY 2020–Present

- Supervisor: Laurence Kaminsky, Ph.D.

Postdoctoral Associate/Research Associate – National Center for Adaptive Neurotechnologies, Wadsworth Center, New York State Department of Health; Albany Stratton VA Medical Center – Albany, NY 2017–2020

- Supervisor: Jonathan R. Wolpaw, M.D.

Research Assistant – Bretl Research Group 2010–2019
University of Illinois at Urbana-Champaign – Urbana, IL

- Supervisor: Timothy Bretl, Ph.D.

Programmer Analyst – Abt Associates – Cambridge, MA 2010–2012

- Supervisor: Matt Malachowski

Associate Programmer Analyst – Abt Associates – Cambridge, MA 2006–2010
- Supervisor: David Pulaski

Recruitment Director – Cognitive Neuroscience Laboratory 2006
University of Florida – Gainesville, FL
- Supervisor: Dawn Bowers, Ph.D.

Laboratory Manager – Cognitive Neuroscience Laboratory 2004–2006
University of Florida – Gainesville, FL
- Supervisor: Dawn Bowers, Ph.D.

TEACHING EXPERIENCE

Head Teaching Assistant – ECE398PSC – Special Topics in Electrical and Computer Engineering, University of Illinois at Urbana-Champaign – Urbana, IL **Fall 2016–Spring 2017**
- Supervisor: P. Scott Carney, Ph.D.

Teaching Assistant – ECE445 – Electrical and Computer Engineering Senior Design, University of Illinois at Urbana-Champaign – Urbana, IL **Fall 2015–Spring 2017**
- Supervisor: P. Scott Carney, Ph.D.

Teaching Assistant – ECE398PSC – Special Topics in Electrical and Computer Engineering, University of Illinois at Urbana-Champaign – Urbana, IL **Fall 2015–Spring 2016**
- Supervisor: P. Scott Carney, Ph.D.

Teaching Assistant – MCB251 – Experimental Techniques in Molecular Biology, University of Illinois at Urbana-Champaign – Urbana, IL **Fall 2011, Spring 2012**
- Supervisor: Nicholas Kirchner

JOURNAL PUBLICATIONS

Habibzadeh, H., **Norton, J. J. S.**, Vaughan, T. M., Soyata, T., Zois, D.-S. (2020). *A voting-enhanced dynamic-window-length classifier for SSVEP-based BCIs*. Submitted to IEEE Journal of Transactions on Neural Systems and Rehabilitation Engineering. Under Review.

Kwon, Y. T., **Norton, J. J. S.**, Cutrone, A., Lim, H. R., Kwon, S., Choi J. J., Kim, H. S., Jang Y. C., Wolpaw, J. R., Yeo W. H. (2020). *Breathable, large-area epidermal electronic systems for recording electromyographic activity during operant conditioning of H-reflex*. Biosensors and Bioelectronics. In Press.

Eftekhar, A., **Norton, J. J. S.**, McDonough, C. M., Wolpaw, J. R. (2018). *Retraining reflexes: Clinical translation of spinal reflex operant conditioning*. Neurotherapeutics. 15(3); 669–683.

Norton, J. J. S., Mullins, J., & Bretl, T. (2018). *The performance of 9-11-year-old children using an SSVEP-based BCI for target selection*. Journal of Neural Engineering. 15(5), 056012.

Norton, J. J. S. & Wolpaw, J.R. (2018). *Acquisition, Maintenance, and Therapeutic Use of a Simple Motor Skill*. Current Opinion in Behavioral Sciences. 20, 138–144.

Mishra, S., **Norton, J. J. S.**, Lee, Y., Lee, D.S., Agee, N., Chen, Y., Chun, Y., & Yeo, W.H. (2016). *Soft, Conformal Bioelectronics for a Wireless Human-Wheelchair Interface*. Biosensors and Bioelectronics.

Norton, J. J. S., Umunna, S., Bretl, T. (2016). *The elicitation of steady-state visual evoked potentials during sleep***.** Psychophysiology.

Liu, Y., **Norton, J. J. S.**, Qazi, R., Zou, Z., Ammann, K.R., Liu, H., Yan, L., Tran, P.L., Jang, K., Lee, J.W., Zhang, D., Kilian, K.A., Jung, S.H., Bretl, T., Xiao, J., Slepian, M.J., Huang, Y., Jeong, J.W., & Rogers,J.A. (2016). *Epidermal mechano-acoustic sensing electronics for cardiovascular diagnostics and human-machine interfaces*. Science Advances.

Rommers, J., Dickson, D., Wlotko, E., **Norton, J. J. S.**, & Federmeier, K. (2016). *Alpha and theta band dynamics related to sentential constraint and word expectancy.* Language, Cognition, and Neuroscience.

Tanner, D., **Norton, J. J. S.**, Morgan-Short, K., & Luck, S. J. (2016). On high-pass filter artifacts (they're real) and baseline correction (it's a good idea) in ERP/ERMF analysis. Journal of Neuroscience Methods.

Norton, J. J. S., Lee, D.S., Lee, J.W., Lee, W., Kwon, O., Won, P., Jung, S.Y., Cheng, H., Jeong J.W., Akce, A., Umunna, S., Kwon, Y.H., Wang, X., Huang, Y., Bretl, T., Yeo, W.H., & Rogers, J.A. (2015). *Soft, curved electrode systems capable of integration on the auricle as a persistent brain-computer interface***.** Proceedings of the National Academy of Sciences 112.13: 3920-3925.

Akce, A., **Norton, J. J. S.**, & Bretl, T. (2014). *An SSVEP-based Brain-Computer Interface for Text Spelling using Adaptive Queries that Maximize Information Gain Rates*. IEEE Transactions on Neural Systems and Rehabilitation Engineering.

Jeong, J. W., Yeo, W. H., Akhtar, A., **Norton, J. J. S.**, Kwack, Y. J., Li, S., Jung, S.Y., Su, Y., Lee, W., Xia, J., Cheng, H., Huang, Y., Choi, W.S., Bretl, T., & Rogers, J. A. (2013). *Materials and optimized designs for human-machine interfaces via epidermal electronics*. Advanced Materials, 25(47), 6839.

CONFERENCE PUBLICATIONS (PEER REVIEWED)

Habibzadeh, H., Zhou, O., **Norton, J. J. S.**, Vaughan, T. M., Zois, D.-S. (2021). *Recursive PID controller for automatically adjusting M-wave size during H-reflex operant conditioning.* Submitted to the 2021 IEEE International Conference on Acoustics, Speech and Signal Processing. Under review.

Devetzoglou-Toliou, S., Brangaccio, J., Gemoets, D. E., Borum, A., Wolpaw, J.R., **Norton, J. J. S.** (2021). *A classifier for improving cause and effect in SSVEP-based BCIs for individuals with complex communication disorders.* Submitted to the 10th International IEEE EMBS Conference on Neural Engineering. Under review.

Webster, E., Habibzadeh, H., **Norton, J. J. S.**, Vaughan, T. M., & Soyata, T. (2018). *An unsupervised channel-selection method for SSVEP-based BCI systems.* Presented at the 9th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference. Nov 8-10; New York, NY.

Akhtar, A., **Norton, J. J. S.**, Kasraie, M., & Bretl, T. (2014). *Playing checkers with your mind: An interactive multiplayer hardware game platform for brain-computer interfaces.* In Engineering in Medicine and Biology Society (EMBC), 2014 36th Annual International Conference of the IEEE (pp. 1650-1653). IEEE.

Awni, H., **Norton, J. J. S.**, Umunna, S., Federmeier, K., & Bretl (2013). *Towards a Brain Computer Interface Based on the N2pc Event-Related Potential.* Presented at the 2013 IEEE Conference on Neural Engineering.

Johnson, E. C., **Norton, J. J. S.**, Jun, D. M., Bretl, T., & Jones, D. L. (2013). *Sequential Selection of Window Length for Improved SSVEP-Based BCI Classification*. Engineering in Medicine and Biology Society (EMBC), 35th Annual International Conference of the IEEE, Osaka, Japan.

Akce, A., **Norton, J. J. S.**, & Bretl, T. (2012). *An EEG-based Brain-Computer Interface for Indoor Navigation Along Human-like Paths*. Presented at the 2012 International Conference on Intelligent Robots and Systems.

CONFERENCE PUBLICATIONS (NOT PEER REVIEWED)

Devetzoglou-Toliou, S., Adamek, M., Mcfarland, D. J., Wolpaw, J. R., **Norton, J. J. S.** (2020). *Enhancing H-reflex operant conditioning using brain-computer interface (BCI)-based feedback.* To be presented at the 2021 Society for Neuroscience Global Connectome: A Virtual Event. Virtual.

Norton, J. J. S., Devetzoglou-Toliou, Brangaccio, J., Gemoets, S., Heckman, S. M., Vaughan, T. M., Carp, J. S., Wolpaw, J. R. (2020). *Flexor carpi radialis H-reflex operant conditioning.* To be presented at the 2021 Society for Neuroscience Global Connectome: A Virtual Event. Virtual.

Norton, J. J. S., Vaughan, T. M., Gemoets, D. E., Heckman, S. M., Devetzoglou-Toliou, S., Carp, J. S., Wolpaw, J. R. (2020). *Operant conditioning of the flexor carpi radialis H-reflex.* Presented at the 97th Annual Conference of the American Congress of Rehabilitation Medicine. Virtual.

Norton, J. J. S., DiRisio, G. F., Carp, J. S., Wolpaw, J. R. (2021). *A brain-computer interface (BCI) for automatically assessing color vision.* To be presented at the 8th International Brain-Computer Interface Society Meeting, Brussels, Belgium.

McLinden, J., Vaughan, T. M., Carp, J. S., Wolpaw, J. R., **Norton, J. J. S**., Shahriari, Y. (2021). *EEG Correlates of H-Reflex Operant Conditioning.* To be presented at the 8th International Brain-Computer Interface Society Meeting, Brussels, Belgium.

Schmitt, W. A., Emery, P., Greenberg, E., Vaughan, T. M., Wolpaw, J. R., **Norton, J. J. S.** (2021). *The BCI Publication Database: A comprehensive, categorized, open-access catalog of articles on brain-computer interfaces.* To be presented at the 8th International Brain-Computer Interface Society Meeting, Brussels, Belgium.

Norton, J. J. S., Vaughan, T. M., Gemoets, D. E., Heckman, S. M., Devetzoglou-Toliou, S., Carp, J. S., Wolpaw, J. R. (2020). *Operant conditioning of the flexor carpi radialis H-reflex.* Presented at the 97th Annual Conference of the American Congress of Rehabilitation Medicine. Virtual.

Norton, J. J. S., Kwon, Y. T., Eftekhar, A., Fake, T., Cutrone, A. M., Wolpaw, J. R., Yeo, W. (2019). *An epidermal electronic system grid electrode for electromyographic (EMG) recording during operant conditioning of human flexor carpi radialis H-reflex.* Program No. 759.23. 2019 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience.

Norton, J. J. S., Eftekhar, A., Heckman, S. M., Vaughan, T. M., Cutrone, A. M., Fake, T., Thompson, A. K., Wolpaw, J. R. (2019). *Operant conditioning of the flexor carpi radialis: current results and simultaneous EEG recording.* Program No. 759.16. 2019 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience.

Norton, J. J. S., Vaughan, T. M., Eftekhar, A., Thompson, A. K., Harrison, A., Sonntag, M., Brown, E., Clements, I. P., Wolpaw, J. R. (2019). *Spinal reflex conditioning system for enhancing motor function recovery after incomplete spinal cord injury.* Program No. 759.17. 2019 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience.

Zhou, O., **Norton, J. J. S**., Carmack, C. S., Carter, J., Gosmanova, K., Wolpaw, J. R., Vaughan, T. M. (2019). *The Music Box: A steady-state visual evoked potentials (SSVEP)-based brain-computer interface (BCI) for people with complex communication disorders.* Program No. 584.15. 2019 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience.

Eftekhar, A., Segal, R. L., Thompson, A. K., Gill, C. R., **Norton J. J. S.**, Heckman, S. M., Wolpaw, J. R. (2019). *Developing a Spinal Reflex Conditioning System for Clinical and Research Use (Research Resource)*. SCI 2020: Launching a Decade for Disruption in Spinal Cord Injury Research. 02/12/2019 - 02/13/2019, Natcher Conference Center, NIH, Bethesda, MD.

Vaughan, T. M., Aslam, M., Zoltan, B., Brunner, P., **Norton, J. J. S.**, Carmack, C. S., Zeitlin, D. J., & Wolpaw, J.R. (2018). *Creating an eyes-closed binary SSVEP-based brain-computer interface (BCI) for the bedside: A comparison of foveal centered and off-centered stimulus presentation.* Program No. 225.17. 2018 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience.

Norton, J. J. S., Eftekhar, A., Heckman, S. M., Barnes, J. H., McCane, L., & Wolpaw, J.R. (2018*). Towards operant conditioning of the flexor carpi radialis: Methods and initial results*. Program No. 387.08. 2018 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience.

Eftekhar, A., **Norton, J. J. S.**, Heckman, S. M., Thompson, A. K., & Wolpaw J. R. (2018). *Multi-electrode arrays for automatic selection of recording and stimulation sites in spinal reflex operant conditioning protocols*. Program No. 387.10. 2018 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience.

Norton, J. J. S., Patel, N., & Bretl, T. (2018). *Does previous experience with a steady-state visual evoked potential-based BCI for text-entry affect user performance?* Poster presented at the 7th International Brain-Computer Interface Society Meeting, May 21-25, Pacific Grove, CA.

Norton, J. J. S., Hubbard, R., Smith, C., & Bretl, T. (2017). *Classification of neural responses to contextually constrained sentence endings using single trial EEG data*. Poster presented at the Cognitive Neuroscience Society Annual Meeting, Mar 25-28, San Francisco, CA.

Rommers, J., Dickson, D. S., **Norton, J. J. S.**, Wlotko, E. W., & Federmeier, K. D. (2015). *Frontal theta and disconfirmed predictions*. Poster presented at the Society for the Neurobiology of Language, Oct 15-17, Chicago, IL.

Rommers, J., Dickson, D. S., **Norton, J. J. S.**, Wlotko, E. W., & Federmeier, K. D. (2015). *Frontal theta and disconfirmed predictions in language*. Poster presented at the Psychonomic Society, Nov 19-22, Chicago, IL.

Rommers, J., Dickson, D. S., **Norton, J. J. S.**, Wlotko, E. W., & Federmeier, K. D. (2015). *Frontal theta and disconfirmed predictions in the language domain.* Poster to be presented at the 55th Annual Meeting of the Society for Psychophysiological Research (SPR), Sept 30-Oct 4, Seattle, WA.

Norton, J. J. S., Umunna, S., Bretl, T. (2014). *Steady-state visually evoked potentials as a method for measuring visual information processing during sleep.* Presented at the 2014 Society for Neuroscience Annual Meeting.

Norton, J. J. S., Haas, S., Beshers, C., Umunna, S., Bretl, T. (2013). *Keep your attention on the ball, a small twist on the old adage.* Presented at the 2013 Society for Neuroscience Annual Meeting.

Norton, J. J. S., Matthews, D., Jaina, G., Hsiang, K.C., Vaidya, B., Jones, D.L., Bretl, T. (2012). *Development of a 60hz 'Wand' for the Detection of Power Line Noise.* Presented at the 2012 Society for Neuroscience Annual Meeting.

Akhtar, A., **Norton, J. J. S.**, Beshers, S., Bretl, T. (2012). *Improving EMG-based gesture control by using symmetric bimanual gestures.* Presented at the 2012 Society for Neuroscience Annual Meeting.

Norton, J. J. S., Akhtar, A., Steines, D., Bretl, T. (2011). *Volitional Control of the Steady State Visually Evoked Potential Using Auditory Feedback*. Presented at the 2011 Coordinated Science Laboratory Student Conference.

Springer, U., Conwell, E., Rosas, A., **Norton, J. J. S.**, & Bowers, D. (2007). *Investigating facial movement asymmetries in the spontaneous expression of positive and negative emotion.* Presented at the 35th Annual Meeting of the International Neuropsychological Society, Portland, Oregon.

Mikos, A.E., Miller, K., Gadwal, S., **Norton, J. J. S.**, Okun, M., & Bowers, D. (2006). *Emotional Modulation of the Startle Eyeblink Response in Essential Tremor.* Presented at the 2006 Convention of the American Psychological Association.

Okun, M., Mikos, A., Gadwal, S., **Norton, J. J. S.**, Fernandez, H., Rodrigues, R., & Bowers, D. (2006). *Enhanced startle with dopaminergic administration in subjects with Parkinson disease.* International Parkinson Congress, Kyoto, Japan.

Springer, U. S., **Norton, J. J. S.**, Rosas, A., McGetrick, J., Bowers, D. (2005). *Modulation of Emotional Reactivity via Semantic Knowledge of Famous Faces.* Presented at the 33rd Annual Meeting of the International Neuropsychological Society, St. Louis, MO.

INVITED/CONTRIBUTED TALKS

Norton, J. J. S. (February 10th, 2020). Brain-computer interface-based assessment of color vision. Department of Electrical and Computer Engineering Seminar Series. Albany, NY.

Norton, J. J. S. (November 2nd, 2018). H-reflex conditioning of the flexor carpi radialis: Updated data analysis methods and preliminary data. Neuroscience 2018 Satellite Symposium – Spinal Cord Plasticity in Motor Control. San Diego, CA.

GRADUATE STUDENT MENTORING

Hadi Habibzadeh – Electrical and Computer Engineering – SUNY Albany	2019–Present
John McLinden – Neuroscience – University of Rhode Island	2019–Present
Stavrina Devetzoglou-Toliou – Biomedical Engineering – TU Delft	2019–Present

UNDERGRADUATE/HIGH SCHOOL STUDENT MENTORING

Isabel Barats – Albany College of Pharmacy and Health Sciences	2019–Present
Rishita Nagothi – Tech Valley High School	2019–Present
Kevin Luu – Neuroscience – Emory, Undergraduate Research Assistant	2019–2019
William Schmitt – Neurobiology – Harvard, Undergraduate Research Assistant	2018–2019
Grace DiRisio – Neuroscience – Colgate, Undergraduate Research Assistant	2018–2019
Lauren Mance – Psychology – Fordham, Undergraduate Research Assistant	2018
Ashtyn Kollar – Psychology – SUNY Albany, Undergraduate Research Assistant	2018–2019
Esteban Ceballos – Psychology – SUNY Albany, Undergraduate Research Assistant	2018
Zeyuan Yu – ECE – UIUC Undergraduate Research Assistant	2016–2017
Shravan Gupta – ECE – UIUC Undergraduate Research Assistant	2016–2017
Graduate Student in Bioengineering – University of Illinois – Urbana, IL	
Zehua Li – ECE – UIUC Undergraduate Research Assistant	2016–2017
Saswat Mishra – VCU Graduate Research Assistant	2016
Megan McMahon – VCU Undergraduate Research Assistant	2016
Mythri Anumula – ECE – UIUC Undergraduate Research Assistant	2015–2017
Birgit Altiz – ECE – UIUC Undergraduate Research Assistant	2015–2017
Melissa Jin – Computer Science – UIUC Undergraduate Research Assistant	2015
Anthony De Roo – ECE – UIUC Undergraduate Research Assistant	2015
Electrical Engineer II – General Dynamics Electric Boat – Groton, CT	
Kyra Michon – MCB – UIUC Undergraduate Research Assistant	2015
Shruti Vaidya – ECE – UIUC Undergraduate Research Assistant	2014
Ojasvi Choudhary – ECE – UIUC Undergraduate Research Assistant and Senior Thesis	2013–2016
Program Manager – Microsoft – Redmond, WA	
Yu-Jeh Liu – ECE – UIUC Undergraduate Research Assistant	2013–2015
Jayanth Alangar – ECE – UIUC Undergraduate Research Assistant	2013–2015
Engineer – Boeing – St. Louis, MO	
Chris Yim – ECE – UIUC Undergraduate Research Assistant	2013–2015
Sasirekha Pandravada – MCB – UIUC Undergraduate Research Assistant	2013–2016
Medical Student – Des Moines University – Des Moines, IA	2013–2016
Nisha Patel – MCB – UIUC Undergraduate Research Assistant	

Medical Student – Chicago College of Osteopathy – Downers Grove, IL

Braden Ming Fong – ECE – UIUC Undergraduate Research Assistant 2013–2014
FPGA Engineer – Motorola Solutions – Chicago, IL

Nahn Huynh – ECE – UIUC Undergraduate Research Assistant 2013–2016

Clarence Elliott – Computer Science – UIUC Undergraduate Research Assistant 2013–2014
Technology Analyst – JPMorgan Chase & Co – Chicago, IL

Gabriel Hruskovec – ECE – UIUC Undergraduate Research Assistant 2013–2014
Software Engineer – FactSet – Norwalk, CT

Kevin Steinhauser – Psychology – UIUC Undergraduate Research Assistant 2013–2014
Consultant – Aon Hewitt – Lincolnshire, IL

Andrew Otto – Computer Science – UIUC Undergraduate Research Assistant 2013
Software Developer – Menards – Plainfield, IL

Bonnie Chen – ECE – UIUC Senior Design Project 2012–2013
Engineer – Honda R&D Americas – Los Angeles, CA

Randy Lefkowitz – ECE – UIUC Senior Design Project 2012–2013
Component Design Engineer – Intel – Lincolnwood, IL

Siyuan Wu – ECE – UIUC Senior Design Project 2012–2013

Xuanyu Zhong – ECE – UIUC Senior Design Project (Research Award) 2012–2013
Software Engineer – Magic Leap – San Francisco, CA

Shiyang Liu – ECE – UIUC Senior Design Project (Research Award) 2012–2013
Software Engineer – Facebook – San Francisco, CA

Yujie Jaina – ECE – UIUC Senior Design Project (Research Award) 2012–2013

Sean Yen – ECE – Senior Thesis 2012–2015
Associate Staff – John Hopkins Applied Physics Laboratory – Laurel, MD

Hani Awni – Computer Science – UIUC Senior Thesis 2012–2014

Gary Hendricks – MCB – UIUC Undergraduate Research Assistant 2012–2014
Medical Student – Southern Illinois University – Springfield, IL

Catya Mesyef – MCB – UIUC Undergraduate Research Assistant 2012–2014
Research Project Coordinator – Northwestern University – Chicago, IL

Sylvia Haas – Computer Science – UIUC Undergraduate Research Assistant 2012–2014

Caroline Beshers - University High School Intern 2012–2013

Nathan Murray – ECE – UIUC Senior Design Project (Best Engineered Award) 2012
Drives and Motion Consultant – Siemens – Boston, MA

Todd Pixton – ECE – UIUC Senior Design Project (Best Engineered Award) 2012
Verification Engineer II – Microsoft – San Francisco, CA

Matt Lurie – ECE – UIUC Senior Design Project 2012
Data Science Manager – Novum Pharma – Chicago, IL

Kyle Spesard – ECE – UIUC Senior Design Project 2012

Associate Engineer – ComEd – Chicago, IL

Gaurav Jaina – ECE – UIUC Senior Design Project (Electromagnetism Award) 2011–2012

Kuei-Cheng Hsiang – ECE – UIUC Senior Design Project (Electromagnetism Award) 2011–2012

Bhaskar Vaidya – ECE – UIUC Senior Design Project (Electromagnetism Award) 2011–2012

Director – Computational Applications and System Integration – Champaign, IL

Anthony Majewski – ECE – UIUC Undergraduate Research Assistant 2011–2012

Kevin McDonald – MCB – UIUC Undergraduate Research Assistant 2011–2012

Distillery Manager – CH Distillery – Chicago, IL

Raeed Chowdhury – ECE – UIUC Senior Thesis 2011

Graduate Student in BME –Northwestern University – Chicago, IL

Se-Jun Chung – ECE – UIUC Senior Thesis 2011

Stephen Umunna – MCB – UIUC Undergraduate Research Assistant 2010–2014

GRANTS AND FUNDING

Student, "*Summer School in Adaptive Neurotechnologies"*, National Center for Adaptive Neurotechnologies, 2016.

Advisor, Mesh++, iVenture Accelerator, 2016.

Organizer, "*Rapid Prototyping of Human-Computer Interfaces: The Development of an Interdisciplinary Community*," Program Grant, University of Illinois at Urbana-Champaign, $15,000, 2012-2013.

National Science Foundation Integrative Graduate Education and Research Traineeship Fellow in Neuroengineering, University of Illinois at Urbana-Champaign, 2012–2014.

Organizer, "*International Collaborative Research Experience in Neuroengineering*," Program Grant, University of Illinois at Urbana-Champaign, $15,000, 2011–2012.

PROFESSIONAL SKILLS AND CERTIFICATIONS

Programming (Proficient) – MATLAB, HTML/CSS, Arduino, LaTeX

Programming (Familiar) – Python, PHP, SQL, JavaScript

Software Packages – Adobe Photoshop, Adobe InDesign, Adobe Premiere, Microsoft Office, Eclipse, SPSS, Linux

Technical Skills – Digital signal processing, psychophysiology, applied machine learning, computer vision

Certifications – Certificate in Business, University of Illinois, 2014.

AWARDS AND SERVICE

Best Paper Award – Webster, E., Habibzadeh, H., Norton, J. J. S., Vaughan, T. M., & Soyata, T. (2018). An unsupervised channel-selection method for SSVEP-based BCI systems. Presented at the 9th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference. Nov 8–10; New York, NY.

Member, *Engineers SPEAK!*, University of Illinois at Urbana-Champaign Strategic Instructional Innovations Program (SIIP). 2016–2017.

Editor, *Neuronews*, University of Illinois at Urbana-Champaign Neuroscience Program. 2012–2015.

Organizer, "*First Annual IGERT Neuoengineering Symposium*," University of Illinois at Urbana-Champaign Neuroengineering. 2011.

Web design work for EPA's ECHO website recognized by President Obama as an example of federal best practices for open government. 2011.

Boston Partners for Education, "*Power Lunch: Reading Mentors for Elementary School Students*". 2008–2010.

Eagle Scout, Boy Scouts of America. 2001.