

# Hani Awni

905 W Main St. • Urbana, IL, 61801  
(224) 715-5995 • hani.awni@gmail.com

---

## Education

**University of Illinois: Urbana-Champaign**

*Electrical Engineering BS*

**May 2015-May 2017**

*Last 2 Years GPA: 3.77/4.0*

**University of Illinois: Urbana-Champaign**

*Brain-Machine Interfacing Custom BS, Computer Science Department in College of Engineering*

**May 2013**

*GPA: 3.2/4.0*

- **Major Description:** Expanded computer science major with deep and wide background in cognitive science, neuroscience, and signal processing. Third ever custom degree awarded by Engineering College.

**Relevant Coursework:** Control Theory, State Space Control, Embedded Systems, Machine Learning, Neural Network Modeling, Cognitive Psychology, EEG Design, Integrative Neuroscience, Biomedical Imaging, Neuroethology

---

## Publications

Hani Awni, J. Norton, S. Umunna, K. Federmeier, and T. Bretl. Towards A Brain Computer Interface Based on the N2PC Event Related Potential. IEEE EMBS NER 2013 in San Diego, CA, 978-1-4673-1969-0/1021-1024.

---

## Experience

### Self-Employed

*Independent Neuroengineer & House Captain*

**San Francisco, CA**

*April 2014 - May 2015*

- Worked on myriad neuroengineering projects, including Moodband, a wearable for EEG-based emotional state visualization; ley\*, a MFQ-scheduler-inspired to-do system; Respectable, a social-graph analysis tool; an Abalone AI competition; and NOS, a generalized BCI in collaboration with Randal Koene.
- Taking online courses in chaos and complexity theory, medical neuroscience, robotics, and linear algebra.
- Researched possible BCIs, especially in the contexts of both potential game designs and mental health.
- Helped direct the setup and growth of a 25-person, intentional community in San Francisco.
- Resolved or mediated inter-resident conflicts with an eye toward the overarching goal of the community.

### Palantir

*Software Developer*

**Palo Alto, CA**

*June - December 2013*

- Expanded and maintained web interface in Typescript, Coffeescript, and Java.
- Designed, developed, and implemented additional feature to core product in Java Swing.

### Dr. Federmeier's Neurolinguistics Lab, Dr. Hummel's Cognitive Modeling Lab

*Lab Technician, Analyst, & Assistant*

**Urbana, IL**

*January 2010 - May 2013*

- Designed & implemented experiment interfaces to best test working theories.
- Assisted graduate students both with writing experiment code and with data mining of ERP results despite abundance of noise and artifacts.
- Aided in setup and running of subjects in EEG experiments, enabling high subject throughput.
- Ensured a comfortable atmosphere for test subjects despite otherwise abnormal circumstances.
- Taught new research assistants and graduate students efficient procedures in use of lab equipment.
- Coded data analysis and results interpretation in light of relevant theories.

### Baxter Credit Union

*Database Architect Intern*

**Vernon Hills, IL**

*June 2008 - August 2011*

- Designed, coordinated, and implemented expansions to database processing capability.
  - Collaborated with non-technical employees throughout the company to clarify the aims of various projects and subsequently implemented projects according to their specifications.
  - Trained and led new interns in T-SQL programming on several database-improvement projects.
- 

## Leadership Positions, Group Membership, Special Interests & Skills

- Founding Chair of SIGNeuro, 2015. Member of ACM, BMES, IEEE, NESA
- Modeling of intelligence and relational reasoning, particularly using neural networks.
- Programming Languages: Java, Python, C++, SQL Variants (POSTGRESQL, T-SQL), OCAML
- Other: Unity Engine, NetLogo,  $\text{\LaTeX}$