

PIERCE STEGMAN

+1 (703) 688-3743 | pwstegman@gmail.com

EDUCATION

University of Alabama

B.S. in Computer Science, GPA: 4.00
Tuscaloosa, AL | Expected 2019

Thomas Jefferson High School for Science and Technology (TJHSST)

Computer Science Program
Alexandria, VA | Class of 2016

SKILLS

JavaScript • HTML5 • CSS • Python •
Java • C/C++ • PHP • SQL • Node.js •
Git • Android • Qt • Unity

RESEARCH

Brain-Computer Interfaces • Signal
Processing • Machine Learning

LINKS

GitHub

<https://github.com/pwstegman>

Website

<https://pwstegman.me>

Google Scholar

https://scholar.google.com/citations?user=Jo_U04AAAAJ

AWARDS AND HONORS

First place at CrimsonHacks, 2017
Built a configurable MIDI keyboard using
the Leap Motion IR sensor
University of Alabama

Winner of Hack the North, 2014
Built a virtual reality bowling game. One
of 10 winning hacks out of 1000
competitors
University of Waterloo

Second place in Koding global
hackathon, 2014 in student category
Built an AI which summarized the terms
and conditions on websites

Eagle Scout in the Boy Scouts of
America (BSA) scouting program

EXPERIENCE

University of Alabama, Human-Technology Interaction Lab | Research Assistant

August 2017 – Present

Designing a JavaScript library for brain-computer interfaces, implementing signal processing, machine learning, and data management methods

Nolij Consulting | Full Stack Developer

April 2015 – Present

Implemented and maintains the current website
Automates employee workflows with scripts powered by Node.js

Nolij Consulting – GSA Federal Contract | Developer and Technical Writer

May 2018 – August 2018

Wrote technical documentation for GSA systems

Updated the online documentation system (reduced page load time by 50%)

University of Alabama, Laboratory for Immersive Communication | Research Assistant

May 2017 – August 2017

Researched signal processing techniques for high efficiency 360-degree video encoding

PROJECTS

Bci.js | Sole Developer

August 2017 - Present

Bci.js is a library for EEG-based brain-computer interface (BCI) design. It allows for the creation of BCI enabled web apps or Node.js applications, containing methods for signal processing, machine learning, and data management. (<https://github.com/pwstegman/bcijs>)

SoundAir | Lead Developer

March 2017

Developed a virtual piano using infrared detection of a user's hand position. Allows user to place 3"x5" index cards on a table and play them as piano keys. (<https://github.com/pwstegman/SoundAir>)

MyoThreeArm | Codeveloper

August 2015 – May 2016

Developed a wave categorization algorithm to interpret muscle movements from an EMG, categorizing unique gestures ranging from a closed fist to letters in sign language. Research was conducted at the TJHSST Computer Systems Lab. (<https://github.com/StegmanKauferLabs/MyoThreeArm>)

TOS-AI | Lead Developer

December 2014

Created an AI which converts long legal documents into shorter bulleted summaries. Allows for quick review of a service's terms and conditions. (<https://github.com/pwstegman/TOS-AI>)

PUBLICATIONS

P. Stegman, C. Crawford, and J. Gray, "WebBCI: An Electroencephalography Toolkit Built on Modern Web Technologies," in Augmented Cognition: Intelligent Technologies, 2018, pp. 212–221.