

Jacob Manning

Computer engineering student focused on artificial intelligence

EXPERIENCE

NASA Goddard Space Flight Center, Greenbelt, MD — Artificial Intelligence and Machine Learning Intern

JUNE 2017 - PRESENT

Help develop and train a deep neural network for detecting wildfires

Responsible for building preprocessing routines, generating appropriate training sets, and determining network performance

NSF Center for High Performance Reconfigurable Computing, Pittsburgh, PA — Undergraduate Researcher

JANUARY 2017 - PRESENT

Study machine learning with focus on neural networks

Write parallel C/C++ using OpenMP to improve stereovision application performance by 1.7x

University of Pittsburgh Office of Residence Life, Pittsburgh, PA — Resident Assistant

AUGUST 2016 - PRESENT

Plan, organize, and execute initiatives in residence hall

Mentor a floor of 56 first-year engineering students

EDUCATION

University of Pittsburgh, Pittsburgh, PA — BS, Computer Engineering

AUGUST 2015 - MAY 2019

GPA: 3.79/4.00

Relevant coursework: Data Structures, Computer Organization and Assembly Language, Analysis of Electronic Circuits, Digital Laboratory

PROJECTS

Visualizing MNIST — Python

Feedforward neural network that allows user to see the image input to the network and the predicted class output in real time

Iris classifier — Python

Logistic regression classifier to preprocess data, train and test model, and view results for iris data set using TensorFlow and TensorBoard

Boggle solver — Java

Find all words that can be constructed from a given square board of letters using recursive backtracking

*address and phone number
intentionally omitted online,
please contact by email*
jacobmanning@pitt.edu

PROGRAMMING LANGUAGES

Java, C/C++, Python,
MATLAB, UNIX, HTML/CSS,
MIPS, JavaScript

INDEPENDENT STUDY

Andrew Ng's "Introduction to
Machine Learning"

Michael Nielsen's "Neural
Networks and Deep
Learning" online textbook

Stanford University CS231n
"Convolutional Neural
Networks for Visual
Recognition" (in progress)

Google's "Deep Learning"
udacity course (in progress)

RECOGNITION

Eagle Scout Boy Scouts of
America, 2012

**National Semifinalist, SIAM
Moody's Mega Math
Challenge** top 18% of teams
in applied mathematics
competition, 2015

**Swanson School of
Engineering Honor Student**
awarded every undergraduate
semester, 2015 - present

**University of Pittsburgh
Emerging Leaders Program**
ten week program to develop
leadership acumen, 2015

**Resident Assistant of the
Month** excellent performance
in September, 2016

Social Program of the Year
executed premier social
engagement program at
University of Pittsburgh, 2017