

Education

Bachelor of Science, Computer Science December 2016
University of Tennessee, Knoxville, TN (UTK)
Summa Cum Laude, 3.8 GPA, Chancellor's Honors Program

Experience

Machine Learning Consultant September 2017 - Present
- Implementing NLP models for Twitter data in Avrio Analytics' Sibyl product (website: <http://sibyl.online>).

Research Assistant (Intern) January - August 2017
Imaging, Signals, and Machine Learning Group, Oak Ridge National Laboratory Oak Ridge, TN
- Used fully-convolutional networks (FCN) to segment neurons and action-potentials in calcium imaging data.
- Achieved near state-of-the-art on the Neurofinder benchmark dataset, resulting in a publication at MICAI 2017.
- Integrated FCN models in an existing toolkit used by neuroscience researchers at St. Jude Research Hospital.

Research Assistant Fall 2015, Summer - Fall 2016
Neuromorphic Computing Research Group, UTK EECS Department Knoxville, TN
- Researched improvements for an evolutionary training algorithm, resulting in a publication at IJCNN 2017.
- Developed training environments for neuromorphic networks using C++ and the Robot Operating System.
- Developed a web interface to visualize neuromorphic networks using D3.js.

Co-Founder, Software Engineer June 2015 - March 2016
StudyLoop (Messaging Platform for Students) Knoxville, TN
- Developed the StudyLoop web application and backend services using Javascript, Firebase, and AWS.
- Collaborated with two iOS developers to release an iOS application.

Software Engineering Intern Spring 2014, Summer 2015
Cadre5 Knoxville, TN
- Developed features for web applications using Java, C#, and Javascript.

Software Engineering Intern Summer 2014
Georg-August University Göttingen, Germany
- Developed a user interface testing suite for an exam-scheduling application using Java and Selenium.

Software Engineering Intern Summer 2012, Summer 2013
Duracell Packing and Manufacturing Plant Cleveland, TN
- Developed internal web applications for safety audits and plant emergency alerts using PHP.

First-Author Publications

- **A. Klibisz**, D. Rose, M. Eicholtz, J. Blundon, and S. Zakharenko, "Fast, Simple Calcium Imaging Segmentation with Fully Convolutional Networks," *Deep Learning in Medical Image Analysis Workshop*, September 2017.
- **A. Klibisz**, G. Bruer, C. D. Schuman, and J. S. Plank, "Structure-based Fitness Prediction for the Variable-structure DANNA Neuromorphic Architecture," *International Joint Conference on Neural Networks*, May 2017.

Technical Skills

- Programming languages: Python, C++, Octave, Javascript/HTML/CSS, C, SQL, Java.
- Frequently used libraries: SciPy, NumPy, Keras, scikit-learn, PyTorch.
- Infrastructure: AWS EC2, AWS Lambda, AWS S3, Docker, Jenkins, Teamcity.

Self-Learning and Side Projects

- Coursera courses on Probabilistic Graphical Models (Kohler) and Machine Learning (Ng).
- Kaggle top 21% in KKBBox Music Recommendation Challenge, December 2017.
- Kaggle top 11% in "Understanding the Amazon from Space" Image Classification Challenge, July 2017.
- Knoxville Entrepreneur Center *CodeWorks* startup accelerator program, Fall 2015.
- Various projects and presentations on data science and web development, see: <http://alex.klibisz.com>