Clay McLeod

CONTACT INFORMATION	Address Removed Address Removed *Phone:* Phone Removed *Email:* clay.l.mcleod@gmail.com *Technical Blog:* blog.claymcleod.io

RESEARCH INTERESTS

Application of machine learning to challenging problems.

EDUCATION

University of Mississippi, University, MS

M. S. Computer Science   **May 2016**
- Master's GPA - 4.0/4.0 (3.93 with prerequisites)
- Financed my college education through assistantships and scholarships.
- **Thesis:** "*The Effect of Hyperparameters in the Activation Layers of Deep Neural Networks.*"

B. S. Electrical Engineering (emphasis in Computer Engineering)   **May 2014**
- Major GPA - 3.81/4.0, Overall GPA - 3.66/4.0
- Graduate of the Sally McDonald Barksdale Honors College
- **Thesis:** "*Biometric Authentication, Dynamic Feature Extraction, and User Classification using TouchAnalytics*"

PROFESSIONAL EXPERIENCE

St. Jude Children's Research Hospital. - Memphis, TN
Senior Software Engineer   **June 2016 - Present**
- Lead developer for the "St. Jude Cloud" project, a corporate-wide initiative to make St. Jude's tools available to the world.
- Collaborated with expert biologists to harness advanced machine learning/data science techniques to a variety of genomic analysis problems (GWAS, MCMC, Deep Learning, Artificial Intelligence).
- Created analysis pipelines for next generation sequencing (NGS) data that is used in clinical and research environments on St. Jude's HPC environment.

FedEx Services - Memphis, TN
Software Analyst Intern   **Summer 2015**
- Built a native, internal mobile application for iOS (Swift) and Android (Java).
- Created a scalable backend server with NodeJS, ExpressJS, and MongoDB.
- Created a proprietary machine learning server/path optimization server written in Python with open-source tools such as scikit-learn and pandas.
- Recipient of the FedEx Technical Mastery award (x2) and the Director's Choice Award for best project. Employee choice award for 2015 best intern project.

Cooper-McLeod Technology, LLC - Memphis, TN
Co-Founder and Vice President   **January 2015 - Present**
- Sole electrical and software engineer for a company focused on providing technological innovation to the construction industry.
- Complete native mobile app on iPhone (Swift), website and server written on the MEAN stack (MongoDB, ExpressJS, AngularJS, NodeJS).
- Created proprietary microelectronic device to compliment software solution.

University of Mississippi - University, MS
Head Teacher's Assistant   **Fall 2014 - Present**
- Full time assistantship that financed Master's degree.
- Hired and managed 30 teacher's assistants. Coordinated lab times programming classes.
- Managed 400 student's lab grades throughout the year.

Research Assistant (Biometric security)   **October 2013 - Present**
- Developed a new kind of biometric authentication system for mobile security using machine learning, exponentially decreasing the likelihood of a successful attack on the system.
- Currently pursuing patent for this software.

Research Assistant (Facial Recognition)   **Spring 2011 - Fall 2012**
- Researched and wrote platform independent facial recognition software.
- Skills learned include proficiency in the C and JavaScript languages, knowledge of the WebGL pipeline, and specialized implementation of the OpenGL Shading Language.

RELEVANT SKILLS	Machine Learning, Data Mining, High Performance Computing, Data Science, Statistical Modeling, Artificial Intelligence, Containerization (Docker, Vagrant), Python 2/3, R, NodeJS, Java, Javascript, C++, C#, C, MEAN stack, Web Development, iOS/Android Development.

HONORS AND AWARDS

- University-related
  - Full-time Graduate Assistantship
  - Adler Engineering Scholarship (4x)
  - Academic Excellence Scholarship (4x)
  - Chancellor's Honor Roll (4x)
  - Graduated Cum Laude (undergraduate)
  - Sally McDonald Barksdale Honors College graduate
  - Upsilon Pi Epsilon (Computer Science Honor Society)
  - Pi Mu Epsilon (Mathematics Honor Society)
  - Gamma Beta Phi (National Academic Honor Society)
  - Sigma Alpha Lambda (National Academic Honor Society)
  - National Society for Collegiate Scholars
- Career-related
  - Scored in top 5% of all data scientists tested for Correlation-One's standardized Machine Learning assessment
  - FedEx Technical Mastery award (x2)
  - FedEx Director's Choice Award for best project
  - FedEx Employee choice award for 2015 best intern project
- Miscellaneous
  - Featured writer on www.kdnuggets.com (popular datascience blog)
  - Biometric security thesis featured in Ole Miss Engineering magazine (link)
  - Alpha Tau Omega Philanthropy Chairman, Alumni Relations, Leadership, Scholarship, and Membership Education Committees
  - Voted top 5 fraternity leaders