**Curriculum Vitae**

1. **DATE:** 17 September 2020
2. **NAME:** DONOVAN, JORDAN, T.
3. **PRESENT TITLE:** COMPUTER SCIENTIST
4. **GRADE:** Senior
5. **ORGANIZATIONAL LOCATION:**

U.S. Army Engineer Research and Development Center

3909 Halls Ferry Road

Vicksburg, MS 39180

1. **EMAIL ADDRESS:** [Jordan.t.donovan.cs@gmail.com](mailto:Jordan.t.donovan.cs@gmail.com)

1. **TELEPHONE:** (office) 601-634-4624; (mobile) 601-988-3575
2. **WORK EXPERIENCE:**

U.S. Engineer Research and Development Center, Vicksburg, MS *2015 - Present*

* Robotic Integrated Engineer Operations (RIENO) Classification Team lead *2018 - Present*
  + Develop machine learning algorithms (primarily CNNs) and visualization tools (metrics as well as layer activations)
  + Perform analysis and improve performance of classification algorithms using metrics and techniques from recent research
  + Identify and apply potential optimization techniques for classification algorithms (specifically for real-time classification)
  + Record techniques and results for publication and presentation
  + Present findings at professional venues
  + Provide neural network visualization expertise to data analytics and robotics teams (specifically NN node activations and optimized inputs)
  + Identify and optimize machine learning design (NN architectures and processes)
  + Train fellow employees in utilization of machine learning frameworks and standards
  + Facilitate business development workshops
* Co-lead of the Mobile Computing Team *2015 - Present*
  + Develop mobile applications, application programming interfaces, websites, and databases for mobile applications
  + Oversee and direct team on mobile application design
  + Communicate with and adapt workflows of customer to mobile application
  + Manage contracts within team
  + Identify and remedy user connectivity and functionality for mobile applications

1. **EDUCATION:**
   1. **Universities attend, years attended, degrees obtained (with dates)**

* Mississippi State University (December 2019), M.S., Major: Computer Science

GPA: 3.7

* University of Mississippi (May 2015), B.S., Major: Computer Science

GPA: 3.2

* 1. **Other Training and Awards (with agency and year attended)**
* Ludobots – Evolutionary Robotics Simulation (online by Dr. Josh Bongard, 2020)
* Data Science in Python (ITL, 2019) (Certificate received)
* CES Foundation (ITL, 2019)
* NVIDIA Deep Learning for Visualization (ITL, 2019) (Certificate Received)
* NVIDIA Deep Learning for Natural Language Processing (ITL, 2019) (Certificate Received)
* Introduction to Deep Learning (ITL, 2018)
* Introduction to TensorFlow (ITL, 2018)
* Introduction to Deep Reinforcement Learning (ITL, 2018)
* USACE CIO Information Management / Information Technology (IM/IT) Technical Support Team of the Year (ITL, 2018)
* Technical Writing (ITL, 2018)
* Technology Transfer (ITL, 2017)
* Dynamic Presentation Skills (ITL, 2017) (Certificate Received)
* FEMA Certificate of Appreciation for Hurricane Response Efforts (ITL 2017)
* Security + (ITL, 2016) (Certificate Received)
* Dept. of the Army Achievement Medal for Civilian Service (ITL 2016)
* Leadership Development Program – Myers-Briggs, Presentation Skills, StrengthsFinder, Emotional Intelligence, Situational Leadership, 7 Habits, Managing Multiple Priorities (2019 – present)

1. **PROFESSIONAL OR TECHNICAL SOCIETIES/ORGANIZATIONS:**
   1. **Graduate/Professional Memberships**

* Association for Computing Machinery
* Autonomous Cyber Security Learning Group
  1. **Undergraduate Memberships**
* Engineering Student Body
* Provost Scholar
* Engineering Scholar
* Mississippi Eminent Scholar Grant Recipient
* Agile Software Engineering Fellowship
* Honor Society Member

1. **TECHNICAL PRESENTATIONS:**

* ⦁ "Evolutionary Selection Criteria and Performance in NAS-Bench-101" RD22 Channel 5 - Decision Making – Artificial Intelligence/Machine Learning B under Modernize our Nation’s Infrastructure. Virtual, April 2022.
* ⦁ "Open-Ended Evolution for Novel AI Models" Neurobotics Laboratory Periodic Meet. University of Vermont, Burlington, VT, April 2022.
* ⦁ "Novel Feature Detectors in CNNs" Deep Learning Periodic Meet. University of Vermont, Burlington, VT, April 2022.
* ⦁ "EfficientNet (V1 and V2)" Deep Learning Periodic Meet. University of Vermont, Burlington VT, April 2022.
* ⦁ "EfficientNet (V1 and V2)" Neurobotics Laboratory Periodic Meet. University of Vermont, Burlington, VT, February 2022.
* ⦁ "Latest Developments in Cellular Automata" Modeling Complex Systems Periodic Meet. University of Vermont, Burlington, VT, December 2021.
* ⦁ "Evolutionary Selection Criteria and Performance in NAS-Bench-101" Evolutionary Computation Periodic Meet. University of Vermont, Burlington, VT, December 2021.
* “Real-time Material Segmentation for Robot Operations” RD20 Pecha Kucha-

Style presentation. Virtual, October 2020.

* “Real-time Material Segmentation for Robot Operations” Data Science Workshop Poster Session. Virtual, August 2020.
* “FEMS data collection with MICA” ERDC HQ FEMS Demo. Vicksburg, MS, January, 2020.
* “Material Classification for Robotic Integrated Engineer Operations” ITL Symposium Poster Session. Vicksburg, MS, November, 2019.
* “CESAT Mobile Demo” Customer Visit and Technology Demo. Vicksburg, MS, October, 2019.
* “Understanding State-of-the-art Material Classification Through Deep Visualization” *Mississippi State University MS Thesis Defense.* Mississippi State, October 2019.
* “Real-time object and material classification for Robotic Integrated Engineer Operations” *Robotic Integrated Engineer Operations FY 19 Closeout.* Vicksburg, MS, September 2019.
* “Mobile Computing Impact and Growth” *Gains in Education of Math and Science II.* Vicksburg, MS, July 2019.
* “Impact of Mobile Computing in the DoD” *University of Louisiana at Monroe Tour.* Vicksburg, MS, March 2019.
* “Utility of Mobile Applications: Mobile Information Collection Application” *ERDC Tour for Great Lakes and Ohio River Division.* Vicksburg, MS, February 2019.
* “Mobile Computing Across ERDC” *Innovation Alley*. Vicksburg, MS, August 2018. (Need to find presentation and date)
* “Mobile Information Collection Application (MICA)” *Little Rock District Data Collection Info Session.* Little Rock, AR, June 2018.
* “Hurricane Relief Efforts: A Developer’s Story” *Science, Technology, Engineering Workshop.* Vicksburg, MS, March 2018.
* “Utility of Mobile Applications: Blueroof Field Management System” *ERDC Executive Conference Room Briefing.* Vicksburg, MS, November 2017. (Need to finalize date)

1. **PROGRAMMING LANGUAGES, SOFTWARE, AND OPERATING SYSTEMS:**

* SQL
* C#
* Python
* R
* HTML
* Javascript
* Java
* Microsoft SQL Server Management Studio
* Visual Studio
* IIS
* Apache
* Jupyter Notebook
* Caffe
* Pytorch
* TensorFlow
* Qt
* XCode
* Vim
* Git
* Window OS
* Linux OS
* Mac OSX

1. **PROPOSALS:**

* "Open-Ended Evolution for Novel AI Models" 6.1 Basic Research. Engineer Research and Delepment Center - Information Technology Laboratory. January 2022

1. **PUBLICATIONS:**

* Donovan, J. (2019). “Understanding State-of-the-art Material Classification Through Deep Visualization.” MS Thesis
* Donovan, J. (2019). “Understanding State-of-the-art Material Classification Through Deep Visualization.” *ERDC Library,* RIENO.
* Donovan, J. (2019). “Material Classification for Robotic Integrated Engineer Operations.” ERDC Library, RIENO.
* Donovan, J., Pettitt, J. “Mobile Information Collection Application: User Manual” *ERDC Library,* MICA.
* Donovan, J., Pettitt, J. “Mobile Information Collection Application: Installation Manual” *ERDC Library,* MICA.

1. **ADDITIONAL INFORMATION**

* Github: <https://github.com/jdonovanCS>
* Webpage: <http://jordandonovan.com>
* LinkedIn: <https://www.linkedin.com/in/jordan-donovan-ab2083194>