Clayton Curry

405-301-1055 | claycurry34@gmail.com | github.com/claycurry34
Norman, Ok

ABOUT ME

- Enthusiastic learner, an application-motivated mathematician (aspiring), and best chess opponent in the room
- Final year undergraduate with an affinity for research in computational intelligence broadly applied, data extraction, feature representation, computational geometry, parallel computing, and physical chemical and biochemistry research
- Research assistant in OU's School of Computer Science focusing on applications of deep learning in air control, particularly waveform sensor fusion and multi-agent trajectory prediction for auto-routing of individual aircraft and airline fleets
- Three years of academic training in industry-relevant programming languages, cloud computing in GCP, data mining, analyzing algorithms, remote communication tools, and exploratory statistical analysis with report writing and visual analytics
- One year of experience programming in multidisciplinary research-oriented professional Agile-driven software teams
- Full of interest in wearing Ford on my chest and constantly finding ways to be useful with my existing skills at Ford and prioritizing any activities that help my team produce products that work by their expected deadlines

EDUCATION

The University of Oklahoma *Anticipated Graduation: Dec 2022*

Bachelor of Science in Computer Science *Cumulative GPA: 3.26*

- ***GPA: 3.28***
- ***Classes Taken: Object Oriented Programming in Java, Data Structures in C++, Operating Systems in C, Machine Learning in Python, Artificial Neural Networks & Evolution, Algorithm Analysis, Agile Software Requirements, Software Engineering***

Bachelor of Arts in Mathematics

- ***GPA: 3.50,***
- ***Classes Taken: Applied Statistical Methods in R, Abstract Linear Algebra, Abstract Algebra, Numerical Analysis, Vector Calculus, Ordinary Differential Equations, Topology***

RELEVANT EXPERIENCE/PROJECTS

University of Oklahoma Department of Computer Science | *Research Assistant* *Nov 2021 - Present*

- Individually developed a multi-processed Python application for extracting and aggregating loosely coupled sources of labeled training data from the US Geological Survey, Mesonet, and 7000+ active feeds of air traffic
- Assisted in developing a radar waveform simulation tool in MATLAB for training a reinforcement learning system to perform aerial surveillance data fusion
- Focused on multi-aircraft tracking and trajectory prediction with relational reasoning for weather and collision avoidance and for autorouting individual and fleets aircrafts
- Implemented continuous integration and Agile development techniques by working with experienced software engineers
- Assisted with formulating problems for optimal machine learning model selection

reference: Alex Stringer - Research Scientist, Software Engineer, and Ph.D. Candidate - (575) 418-7137

University of Oklahoma Department of Physics | *Linux System Administrator Assistant* *Feb 2021 - Present*

- Lead Physics Staff/Faculty through porting website from Expressionengine to Adobe Experience Manager
- Configured generalizable redirection rules using regular expressions for Apache web server
- Constructed useful tooling for website quality control using Python (see project on GitHub)
- Developed bash scripts for network-wide information retrieval and license updating using SSH.

reference: Soumya Bhattacharya - OU IT Linux System Administrator - (405) 430-4765

Multi-threaded Website Health Checker and Auditing Tool | *Creator* *June 2021 - Present*

- Prototyped and documented a multithreaded, self-caching, recursive web crawling program in Python
- Generates a health report for any website, checking broken links, validating emails, and accessibility text

reference: github.com/claycurry34/site-health-checker

TECHNICAL SKILLS

Programming Languages: C/C++ with STL, Python, R, MATLAB, Java, HTML, JavaScript, Visual Basic for Applications
Programming Tools/Frameworks: Git, Tensorflow, Numpy, Matplotlib, Bash, Jupyter Notebook, Apache HTTP Server, LATEX, Anaconda, Microsoft Excel Spreadsheet Programming and Add-ins
Skills: Chrome Development Tools, Wrangling Data Sets, Presentation Skills, Data Visualization, Agile Product Management, Statistical Learning in Python and R, Algorithm Development
Operating Systems: Windows, macOS, Linux (Ubuntu 20.04, Arch Linux, Red Hat Enterprise Linux)
Remote Communication: Atlassian Jira, Zoom, Teams, Slack, Discord

OTHER EXPERIENCE

Oklahoma Secondary Sports Association | *Basketball Referee* *Nov 2015 - Dec 2021*

- Accurate decision making enforcing rules in the game of basketball from elementary up to high school varsity levels

reference: Mike Taylor - NPMS Basketball Coordinator - (405) 570-1462

OU's Student Chapter for the Association of Computing Machinery, OU | *President/Chair* *Aug 2020 - Present*

- Delivered a live presentation on Git and GitHub to an audience of 15 CS, physics, and math students; topics and presentation were crafted individually by me, covering command line history, Unix programs, Git repositories, stages of a file, branches and remotes
- Coordinating events with the CS department, reaching out to other clubs at OU, expanding social networks of OU students with other SACM clubs throughout the United States
- Participated in weekly discussions focusing on modern industry tools accessible to those with little background in CS

reference: Rafal Jabrzemski - Chapter Advisor - rjabrzemski@ou.edu

Association for Women in Computing, OU | *Treasurer* *Mar 2021 - Present*

- Learned soft skills such as leadership, role modeling, and embracing inclusive thinking and unheard perspectives
- Facilitated inter-club networking and collaboration with department through organizing events

reference: Keerthana Saravanan - President - (405) 404-2415

Out in STEM, OU | *Member* *Mar 2021 - Present*

- Learned the importance of visibility, challenging groupthink, personal transparency, and helping peers understand early "the path forward," for optimal decision making and satisfaction

AWARDS

Oklahoma State Regents' Academic Scholars Program | *Student* *8 semesters*
Gallogly College of Engineering Dean's Honor Roll | *Recipient* *3 semesters*