Ryan Westfall

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Education

University of Oklahoma *Norman, OK*
B.S. WITH HONORS IN COMPUTER SCIENCE, MINOR IN MATHEMATICS *August 2018 - May 2022*
- GPA: 3.88
- Coursework: Data Structures, Principle of Programming Languages, Artificial Neural Networks & Evolution, Theory of Computation, Operating Systems, Computer Organization, Applied Statistics, Linear Algebra, Discrete Mathematics, Algorithm Analysis

University of Oxford *Oxford, United Kingdom*
HONORS AT OXFORD STUDY ABROAD PROGRAM *June 2019 - July 2019*

Claremore High School *Claremore, OK*
HIGH SCHOOL DIPLOMA *August 2014 - May 2018*
- GPA: 3.95 | ACT: 34
- Honors: Valedictorian, TSA State Champion in Coding (2017) and On-Demand Video Production (2018), 3rd place VEX Robotics (2018), All-State Tennis (2018), President of Zebra TV Newscast (2018)

Experience

Paycom *Oklahoma City, OK*
SOFTWARE DEVELOPMENT INTERN *May 2021 - Present*
- Created full-stack messaging bot application that interfaces with the QA department's E2E testing suite allowing for asynchronous test executions: built with React app, ASP.NET REST API and a MySQL Database

University of Oklahoma *Norman, OK*
RESEARCH ASSISTANT *January 2020 - May 2021*
- Generated benchmark source files using source-to-source polyhedral model compilers PPCG and PLUTO utilizing the polyhedral benchmark suite PolyBench/C
- Compiled previously collected benchmark source files on the Intel icc compiler and collected their run-time data using UT Austin's supercomputer Stampede2

Pixorize *New York, NY*
SOFTWARE INTERN *May 2019 - July 2019*
- Created an in-house text-editor application that streamlined Pixorize's content creation and management process: built a React app and Express REST API, containerized front-end and back-end using Docker, utilized E2E and unit tests
- Built GUI that automated image thumbnail creation by using React + Cropper.js and Node.js + GraphicsMagick

Projects

Html-to-Pdf Creator Tool
- Constructed Node.js application to generate PDFs from HTML and CSS, using Express backend by which users can preview and edit PDF pages
- App features production and development modes, a Docker containerized workflow, hot reloading in the preview server, and html data injection

Simple Linear Regression Powerlifting Analysis
- Conducted an analysis of how a powerlifter's body weight impacts their lifts in the bench, the deadlift, and the squat
- Used Simple Linear Regression and ran checks for linearity, normality of errors, equal variances, and independence of errors to draw conclusions

Neural Network Based Sentiment Analysis Approach Comparison
- Self-created study comparing how simple RNN, LSTM, and CNN sentiment analysis approaches compare in accuracy among each other

Stock Market Analyzer
- Designed and implemented algorithm to analyze market trends to buy and sell stock with simulation money

Extracurricular Activities

Robotics Club *Norman, OK*
TEAM PROGRAMMING LEAD *August 2018 - Present*
- Sketched robot mock-up, created 3D print components in CAD, laser cut plywood to create chassis, soldered wires to pins/connections on motor controller and microcontroller, and coded autonomous event loop in Arduino

Skills & Interests

Skills: Javascript, React, Express, Docker, Bash, HTML, CSS, Java, C, C++, Python, R, C#, Gatsby, Git, LLVM, Adobe Suite
Interests: Weightlifting, Tennis, League of Legends, Ping Pong, Video Production, Chess, Reading