Aaron Pierce

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EDUCATION University of Oklahoma (National Merit Scholarship), Norman, OK

B.S, Computer Science 2018 – Present

Relevant Coursework: Introduction to Java for Programmers, Programming Structures and Abstractions, Data Structures, Calculus I-III, Linear Algebra, Discrete Mathematics

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Involvement Norman Advanced Robotics - Competative Robotics Team

Lead of Research and Development, Autonomous Robot Programming

Team won the 2018 global competition

Authored two award winning papers submitted to the Global Conference on Educational Robotics Skills learned along the way:

- C Programming
- PID Loops, PID Tuning, Basic Inverse Kinematics
- Programatically computing integrals and derivatives

PROJECTS Linear Regression Model - Machine Learning Algorithm

Implemented a Linear Regression model using Gradient Descent to minimize a Least Mean Squares cost function. Based upon Andrew Ng's CS229 Machine Learning course.

Skills learned along the way:

- Multivariable Calculus (Partial Derivatives)
- Linear Algebra (Solving systems of Linear Equations, Pseudoinverses)
- Python

Automotive Dealer Management Software - Commerical Software

Wrote software to manage the inventory, sales, and reporting for a small car dealership.

Skills learned along the way:

- Java, JavaFX
- Object Oriented Modeling, Object Serialization
- Generating PDFs using iTextPDF

Park In Norman - Fullstack Web App

Created a full stack web app to allow local homeowners to sell their driveways as parking spaces for university students and football games

Skills learned along the way:

- NodeJS, Express, HTTP requests and forms
- HTML5, CSS3, JavaScript (ES6)
- MongoDB and NoSQL databases
- Google OAuth 2.0 API
- Geocoding and mapping with the MapBox API and Leaflet.JS

PROGRAMMING EXPERIENCE Languages: JavaScript (ES6, NodeJS), Java, Python, C++

Libraries: Express, Socket.IO, OpenCV, VueJS,

Operating Systems: Linux (Arch, Ubuntu, Debian), Windows