Jarrod Lance Alviar Cruz

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SUMMARY

ASU junior majoring in Computer Science with a minor in Data Science seeking internships. Experienced in fullstack development and machine learning. Excellent communicator and problem solver with an unmatched work ethic.

EDUCATION

B.S. Computer Science, Minor in Data Science — Expected May 2025
Arizona State University, Tempe, AZ — 3.7 GPA

TECHNICAL SKILLS

Programming Languages: Java, Python, R, C , C++ , TypeScript , JavaScript, HTML/CSS
Frameworks: React.js, Node.js, Next.js
Libraries: PyTorch, Numpy, TensorFlow, Pandas, SciPy, Scikit-learn
Tools, Databases, and OS: Windows, Linux, Git, Github, Docker, PostGreSQL, SQL, Jest, Unit Testing
Relevant Coursework: Applied Machine Learning, Data Analysis, Object Oriented Programming and Data Structures, Data Structures and Algorithms

WORK EXPERIENCE

Software Engineer Intern, U.S. Army Engineer Research and Development Center (ERDC-CERL)
U.S. Army Engineer Research and Development Center, Champaign, IL — 05/2023-Present

- Developing a full-stack Next.js military project manager platform supporting 600+ military projects.
    - Tech stack: Typescript, React.js, Node.js, Microsoft SQL server, Prisma.js
- Formulated new data rendering features using React.js and TailwindCSS.
- Utilizing docker and next.js static site generation for deployment to clients and management of system infrastructure.
- Implemented unit testing via Jest to verify proper generation of each of the 600+ unique webpages.

Technology Consultant, Arizona State University
Arizona State University, Tempe, AZ — 08/2022-Present

- Works directly with clients to identify and resolve computer issues.
- Assists in computer hardware installation, configuration, and maintenance.
- Increased productivity by developing a powershell script that automates tasks.

PROJECTS

Used Car Sale Prediction, *Python*

- Analyzed used car data from 100,000 car sales.
- Utilized and compared various machine learning models' MSE to determine which one is the best at predicting future sale price.
- Utilized feature engineering and optimization techniques to improve model performance.
- Packages: numpy, pandas, sci-kit learn, tensorflow.

StockX Sneaker Data Analysis, *R*

- Analyzed StockX sneaker sales data from Kaggle's data competition.
- Utilized **R** to run data explorations and statistical analysis, and **Plotly** package to create interactive graphs of data.
- Utilized linear regression models to calculate relationships between profit and categorical variables.

Covid-19 Exploratory Data Analysis, *Python*

- Analyzed Covid-19 data from 230 countries.
- Created interactive visualizations using **Plotly Express** to display global cases and statistics.
- Packages: numpy, pandas, sci-kit learn.

Pathfinder, *C++*

- Created a program that finds the shortest path in a map (2x2 matrix) via BFS and DFS searches.
- Generates a map with impassable terrain from user input.
- Displays the map with the shortest path found (if possible) and saves it to a .txt file.

Pong, *Java*

- Created a 2 player pong game.
- Utilized java swing GUI.
- Has collision checks, random ball placement, increased ball velocity upon hit, smooth paddle movement, and score tracker.

EXTRACURRICULAR EXPERIENCE

Philippine American Student Association, Tempe, AZ — 08/2021-Present

- Serves as the Athletic Chair for the Fall 2022-Spring 2023 school year.
- Plans and carries out athletic events for the student body at Arizona State University.
- Creates a safe and welcoming environment for students interested in Philippine culture.

Student Health Outreach for Wellness, Phoenix, AZ — 01/2022-05/2022

- Operated a student run clinic at Arizona State University Downtown that helps underserved and vulnerable populations around the Phoenix area
- Created and implemented wellness programs and activities for senior citizens with mental and physical disabilities.
- Directly partnered with Foundation for Senior Living (FSL Phoenix) to increase patient satisfaction.