

Charles Hume

Salem, NH | (904) 864-1301 | charliehume0806@gmail.com

EDUCATION

Villanova University | Villanova, PA

Graduated Magna Cum Laude – Class of 2025

B.S. in Mathematics and Computer Science

GPA: 3.87 | Dean's List All Semesters | Upsilon Pi Epsilon Member

Additional Courses and Certifications:

Spring Boot: Mastering the Fundamentals by Mosh Hamedani

Spring Boot: Mastering REST API Development by Mosh Hamedani

The Ultimate Git Course by Mosh Hamedani

SKILLS

Proficient in Java, Python, C, JavaScript, TypeScript, HTML, CSS, R, SQL

Machine learning modeling using TensorFlow and scikit-learn

Mathematical and statistical prowess, problem solving ability

Front-end experience with React and Angular. Backend experience with Spring Boot and Django

Database creation and management with SQL

Hosting on AWS, GitHub Version Control

Agile/Scrum and Waterfall Methodologies

Data science and data visualization skills using R

Game development experience with Unity (C#) and Unreal Engine 5 (C++). Experience 3D modeling with Blender.

Experience creating apps using React Native

Experience with Mac, Linux, and Windows OS

Expert with Microsoft Excel

Excellent verbal and written communication skills. Advanced Spanish speaking, writing, and listening

WORK EXPERIENCE

Chancey Metals, LLC | Jacksonville, FL | Intern

May – September 2023

- Built dynamic pricing estimation models in Microsoft Excel for the company's catalog of various metal products
- Learned to organize data tables efficiently, write complex formulas, and sync multiple workbooks together
- Scheduled and held meetings with shop floor workers, managers, and company executives to learn pertinent information about how certain metal products are manufactured and installed
- Presented the new estimation models to the estimation team and taught them to use the new system
- Chancey ranked 21st fastest growing company in Jacksonville in 2024 according to Jacksonville Business Journal

PROGRAMMING AND MATHEMATICS PROJECTS

Social Connect | Senior Project | Lead Front End Developer

Jan – Dec 2024

· Created a web app where content creators can link their Instagram, TikTok, and YouTube accounts and customize their own dashboard that uses API calls to display their most recent posts, an interactive calendar to schedule future posts, graphical analytics of views, likes, shares, and watch time, and a visual of most recent comments received across all platforms with the ability to reply to them. Built using React, Spring Boot, and a MySQL database, and hosted on AWS.

NBA Draft Prospects Machine Learning Project

· Created multiple machine learning models that could analyze college basketball players' stats and help scouts determine who they should draft. Used logistic regression, decision trees, random forests, and neural networks.

Climate Effects on Natural Disasters - Data Science and Visualization Project

· Analyzed weather and tropical storm/hurricane data over the past 100 years to understand how temperature and precipitation changes affect the magnitude and intensity of natural disasters. All data processing and visualization in R.

Clutch Factor: A new way to measure how NFL quarterbacks perform under pressure

· My Mathematics Senior Capstone Project and Paper - Used multiple linear regression and matrix pseudoinverse, combined with extensive NFL data, to create a metric for measuring quarterback performance. Then, created a Clutch Factor formula to create a ranking of the most clutch NFL quarterbacks.

Unity Zombie FPS Game

· Created a zombie survival first person shooter game using C# in Unity and animation rigging in Blender. Used Google Earth to create a photo-realistic recreation of my college campus for the map.