Gunner Lyon

James Madison football recruitment Intern

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EXPERIENCE

James Madison University, Harrisonburg VA— *Recruitment Intern*

Aug 2024 - Present

My current role is streamlining the recruiting process and finding recruits. I streamline this process by creating programs that combine AI, linear regression, and linear algebra. I am using the results to try my best to predict future success. I find recruits by searching on various websites like Huddle and watching hours of film. I also go through various stats websites like max preps to figure out if the player's output meets our standards. During game days my primary goal is to sell potential recruits how great this program is.

PROJECT SKILL TREE LTD, England — *Software Engineer*

June 2021-Dec 2023

Helped develop the front-end code for the Skill Tree mobile app. I built the settings page from scratch on top of writing much of the code when a new user signs up for the app. I taught myself the structure of typescript, react native, and express JS servers implementing MongoDB. I would also schedule a good portion of the meetings during the early stages of development so we could stay on track.

James Madison University, Harrisonburg VA — *Film intern*

Aug 2023 - Aug 2024

I recorded all 22 coaches' films, where you get all players in the frame, during practice. There I got to learn how the team operates and a variety of videography skills. I recorded over 100 practices through my year with the team using cameras ranging from big rigs to small handhelds during Oline drills.

SKILLS

Full stack development

Film analysis/Grading

Theoretical statistics

Regression

Discrete mathematics

Assembly
C coding

SQL

Excel

Linear algebra

Python

LANGUAGES

English/very basic spanish

First Landing National Park, Virginia Beach VA — *Snack Bar Ranger*

June 2021 - Aug 2021

My two main job roles were cashier for the park's gift shop and prepping food at the snack bar. My responsibilities for cashiers were manning the cash register, restocking the shelves, sweeping the store, cleaning the windows, and moving pallets of firewood into the store. My main responsibility while at the snack bar was preparing a variety of food in a convection oven. This included but was not limited to burgers, hotdogs, fries, etc. Some other responsibilities were washing dishes, cleaning the oven racks, and taking orders for customers.

EDUCATION

James Madison University, Harrisonburg VA — B.S Computer Science , BS Mathematics, Minor in Computational Analytics

August 2023 - Present

I use my combined math and computer science skills to provide advanced filtering and automation systems to streamline the entire recruitment process from discovery all the way to offering the player.

PROJECTS

Redesigning JMU's recruitment system — *Undergraduate Research*

My team developed a prediction algorithm based on player measurements and times gotten from a variety of high school camps. We then created a computer program where you can input these stats and it outputs whether you should look at the player or not. We then presented it showcasing its 5 combined type 1 and type 2 errors out of 1000 simulated players.

2023-2024 NFL draft report— *Employment Task*

I compiled 34 pages of NFL draft information and put it into a clean, readable format. This was used to evaluate that Year's recruiting class and how well we do at producing draft level talent. This was then given directly to the Head coach of the program.

Squat-Flexibility analysis— *Employment Task*
I created a video analysis tool that takes a potential recruit and grades this flexibility using dot products to get a variety of different angles in 3d space to gain deeper insight into how a player will fit into JMUs system.

First D1 Offer tracker — *Employment Task*
I created a custom algorithm that scans on3/rivals and 247 sports for players who got their first d1 offer that week. This allows our current staff to get to these up and coming players before any other teams manage to see them.

LinkedIn
https://www.linkedin.com/in/jmurecruiter/

Academic experience

Elementary statistics - 220
I learned basic linear regression, the basic features of a bell curve, (variance, standard deviation, quantiles, z-scores, etc). I also learned test statistics, the null hypothesis, what p-values do, and type 1(false positive)/ and type 2(false negative) error. I feel confident in my ability to do all of the topics I listed. This will be helpful because econometrics(from my perspective) is statistical analysis and has a strong foundation.

Calculus 1
I feel very confident in my ability to do derivatives(using a variety of rules such as power, chain rule, identities, etc). However I don't feel as confident when deriving complex trig expressions. I'm unsure how calc 1 will be completely useful for this, but I have a strong basis in it.

Calculus 2
I feel confident enough in taking definite/indefinite integrals using the following. U-sub, trig sub, trig identities, and partial fraction decomposition. I feel very confident in doing riemann sums.The main thing I struggle with would be the disk and shell method. I'm unsure how this would be useful, but I'm sure I will find out as I take the course.

Discrete Structures 1
This course was specifically a CS course so I learned it through the lens of a coder. I confidently remember how to do proof by induction and remember mostly how to do proof by contradiction. I have not taken the course in a year so I would need to do some review. This would be useful for justifying my decisions as I work out a problem.

Differential equations
I have the ability to solve 1st order ODES using separation of variables as well as finding solutions for homogeneous and non homogeneous linear differential equations.

Linear algebra
I have a strong ability to work with vector spaces, matrices, nth dimensional vectors, and kernels. I can prove the different addition and multiplication properties for matrices as well.