

# Andrew Esch

**Monmouth, OR**

## Summary

---

Senior at Western Oregon University studying Computer Science, with skills in Python, C# and SQL programming. Hardworking, reliable, and capable team player with strong quantitative ability and great communication and teamwork experience from my time spent as a Computer Science tutor and customer service professional.

## Education

---

**Western Oregon University, BS Computer Science**

**(SEP 2019 – JUN 2024 (Expected) | Monmouth, OR)**

Major: Computer Science | Minor: Mathematics

Institutional GPA: 3.80

Coursework: Data Structures, Computer Organization, Algorithms, Programming Languages, Information Management, Operating Systems and Networking, Software Languages and Tools, Software Design and Testing, Networks, Microservice Architecture, Applied Discrete Mathematics, Differential Calculus, Integral Calculus, Multivariate Calculus

## Work Experience

---

**Western Oregon University | Computer Science Tutor**

**(MAR 2023 – Present | Monmouth, OR)**

- Provide programming instruction to students working in C#, Python, and SQL
- Analyze project requirements and investigated bugs in student's code in order to provide meaningful feedback/instruction
- Break down complicated computer science and programming concepts in order to aid in the understanding of beginners
- Provide assistance to the staff in the computing sciences department

**Yeasty Beast | Server**

**(AUG 2022 – Present | Monmouth, OR)**

- Provide alcohol, food and assistance to customers
- Maintain a positive work attitude and environment

**Roth's Fresh Market | Cashier**

**(JUN 2017 - April 2023 | Monmouth, OR)**

- Provided a pleasant shopping experience for customers
- Operated the cash register and performed daily till closing procedures
- Assured the smooth operation of the store by stocking goods and helping to maintain a clean environment

## Skills & abilities

---

- Languages: C#, Python, Matplotlib (Python), C/C++, SQL
- Development Tools: Git, VSCode, Visual Studio, SSMS, Azure Data Studio
- Other Skills: Problem solving, Communication, Teamwork

## Projects

---

**Microservice Term Project | Python, Flask, MongoDB, Celery, Redis, Swagger**

**(FEB 2023)**

- Engineered and transitioned a monolithic application to a microservice architecture, establishing a robust event queue, creating Swagger documentation, and integrating a Mongo database. Personally implemented the service as an API utilizing the Flask framework.
- Optimized system performance and user response times by implementing asynchronous task processing with Celery and Redis, ensuring efficient handling of background tasks in the microservice environment.

**Full Stack Web Game | C#, .NET, SQL**

**(MAY 2023)**

- Developed a 'GeoGuesser' style web game, employing external APIs and enforcing SOLID design principles for robust system architecture, complemented by rigorous C# unit testing to ensure functionality.
- Integrated Entity Framework for object-relational mapping, optimizing data access and manipulation between the SQL database and game models, enhancing performance and scalability
- Collaborated effectively with a team of four, including myself, to drive the project to completion, harmonizing group strengths to meet development milestones.