

OSCAR NOLEN

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EDUCATION

University of North Carolina at Charlotte, Charlotte, NC

08/2024-12/2025

- ❖ Master of Science in Computer Science

Duke University, Durham, NC

08/2020-05/2024

- ❖ Bachelor of Science in Computer Science
 - ❖ Bachelor of Science in Mathematics
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EXPERIENCE

AI Engineer

Ally Financial, Charlotte NC

01/2025-0/2024

- ❖ I'm building powerful agents to drive automation at Ally, using modern frameworks such as LangGraph, Model Context Protocol, and OpenAI Agent SDK.

Software Dev Engineer Intern

Amazon Web Services, Seattle WA

05/2024-08/2024

- ❖ I contributed to AWS User Notifications (a notifications system) by designing and implementing an asynchronous central logging service. This new service will help identify missing notifications and related complications in the data-plane.
- ❖ For this service, I architected a data logging system with AWS Lambda and DynamoDB, and I developed APIs in Kotlin for seamless retrieval of notification traces.
- ❖ I built the infrastructure with AWS Cloud Development Kit and integrated with AWS CloudWatch for monitoring and debugging. Additionally, I constructed a frontend UX with React.

Software Dev Engineer Intern

Amazon Web Services, Seattle, WA

05/2023-08/2023

- ❖ I contributed to Amazon Connect, an omnichannel cloud contact center platform, by developing a resource that helps replicate customer service workflows across multiple accounts.
- ❖ This new resource acts as a reusable skeleton for customer service workflows, enabling efficient customization and deployment. I developed this resource in the existing control plane service, and I built CRUD APIs in Java to support creation and management.
- ❖ Additionally, I added validation logic that parses the JSON representation of this new resource, ensuring data accuracy and visibility. This project was also implemented with JUnit and Integration testing.

Amazon Propel Intern

Amazon Web Services, Matthews, NC

05/2022-08/2022

- ❖ I worked on compatibility improvements in Babelfish for Aurora PostgreSQL, a new capability that enables Aurora to understand Microsoft SQL Server.
- ❖ As a part of this project, I Identified missing catalog objects necessary for common usage patterns in Visual Studio, SQL Server Management Studio, and other SQL clients.
- ❖ Additionally, I collaborated with the Babelfish engineering team for replacing said objects, attending design reviews, and making changes to the code base.

Service Desk Clerk

Duke University Libraries, Durham, NC

08/2021-05/2024

- ❖ Checked in/out books for library visitors
- ❖ Handled hold requests and related concerns
- ❖ Shelved and organized all media items

Management/Shift Lead

MOOYAH Burgers, Fries & Shakes, Matthews, NC

10/2019-08/2021

- ❖ Supervised employees and ensured food quality on the line
- ❖ Prepared and stocked ingredients and materials
- ❖ Conducted nightly closes
- ❖ Handled customer and employee concerns

LEADERSHIP AND PROJECTS

Class of 2024

Greenhouse Scholars

06/2020-05/2024

- ❖ 1 of 3 scholars chosen from NC; 1 of 19 chosen nationwide
- ❖ Community Impact Initiative - Developing mental health curriculum for Chicago Public Schools
- ❖ Individual Impact Initiative - Providing creative/artistic resources for STEM students
- ❖ Networking with industry professionals and personal mentor

STEM Intern

Discovery Place Science, Charlotte, NC

06/2019-08/2019

- ❖ Completed training for science exhibits and animal care
- ❖ Assisted performers at the live theater
- ❖ Guided visitors around the museum

SKILLS

Languages: Java, Python, C, C++, Kotlin, Javascript, SQL, JSON

Technologies: Numpy, Pandas, Git, Linux, React, AWS Lambda, DynamoDB, Spring, NoSQL, PyTorch, S3, LangGraph, CloudFormation

RELEVANT COURSES

- ❖ Parallel Computing
- ❖ Data Structures
- ❖ Computer Architecture
- ❖ Database Systems
- ❖ Topological Data Analysis
- ❖ Differential Geometry
- ❖ AI/Machine Learning Techniques
- ❖ Parallel Computing
- ❖ Linear Algebra
- ❖ Design and Analysis of Algorithms
- ❖ Discrete Mathematics
- ❖ Real Analysis