

# PRINCE AHMED

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## Education

### Duke University

Class of 2024

*Bachelor of Science in Computer Science and Physics minor*

*Durham, NC*

- **GPA: 3.963/4.0** and **4.0** Major GPA
- **Karsh International Scholar:** 1 of 5 out of the student body to receive a full ride merit based scholarship of \$340,000.
- **Coursework:** Advanced Software Engineering, Machine Learning, Algorithms, Advanced Networks, Databases.
- Duke Applied Machine Learning, Men Rowing Team, Modern Dance, Guitar, Photography, Languages - Italian, Spanish.

## Work Experience

### Rumie

January 2024 – Present

*Software Engineer Intern*

*Remote*

- Developing backend serving approximately **6000 users**, to browse, book, and manage dress rentals.
- Successfully deployed a highly available server on AWS utilizing GraphQL, MongoDB, Express.js and TypeScript.

### Finesse Formula LLC - Recly

May 2023 – August 2023

*Software Engineer Intern*

*Naples, FL*

- Redesigned home screen sections to allow users to find partners and future workouts immediately.
- Reduced React app load time by **60%** by refactoring several initial NestJS API calls.
- Added multi language support to resolve a common pain point for customers representing **35% in ARR**.

### Duke Office of Information and Technology

May 2022 – August 2022

*Software Engineer Intern*

*Durham, NC*

- Automated review of 20,000+ grant proposal PDFs to find similarities, reducing manual effort from days to 15 minutes.
- Led team of 6 to architect a Transformer Natural Language Processing (NLP) pipeline that achieved a **94% accuracy**.
- Deployed web app with university Auth, Docker and maintained the GitLab **CI/CD pipeline** through a Linux VM.
- Managed team and product using Jira, conducted stakeholder interviews, set requirements and acceptance criteria.

## Projects

### Restaurant Recommendation App | React, Ruby on Rails, PostgreSQL, Swift

January 2023 - September 2023

- Led a team of 5 in the development of an app with **\$7000 raised** that aims to allow groups to choose restaurants.
- Crafted a prototype for user testing resulting in **91% user satisfaction rate** from **600+ people** at Duke and London.
- Designed efficient Rails REST APIs enabling the Swift app to search, create dining groups, and voting on restaurants.

### Decentralized YouTube | Python, TypeScript

December 2023

- Implemented Chord Protocol in a peer-to-peer streaming network with consistent hashing for distributed system.
- Incorporated Adaptive Bitrate Streaming to ensure seamless video quality adjustment to available bandwidth.

### Breakout Game | Java

January 2024

- Implemented Breakout game mechanics, multiple levels, power-ups, different type of moving blocks and cheat keys.
- Refactored code to utilize inheritance, abstract classes and follow design principles.

### Amazon Clone | Flask, PostgreSQL, Docker

October 2023 - December 2023

- Team of 5 implemented marketplace simulation, featuring robust database, interactive front-end and MVC back-end.
- Supported storage of 20,000+ products with pagination, filters and search, enabling multiple sellers for the same product and accurate cart additions linked to chosen sellers.

## Research

### Ring Attractor Model Research Assistant | Python, Object Oriented

January 2022 - May 2022

- Collaborated in team of 2 to create a Python representation of a network model consisting of over **200 neurons**.
- Explored model's reactions under various conditions and stimuli and opened up avenue for new experiments.

## Leadership

### Undergraduate Teaching Assistant

January 2023 – Present

- **Discrete Math** - Led recitation for 30 students - fostered collaboration and lectured more complex material.
- **Server Side Web App** - Held office hours and provided technical support for Ruby on Rails projects to a class of 70.

## Skills

**Programming Languages:** Python, JavaScript, Java, Swift, C, Ruby, SQL, TypeScript.

**Technologies:** Ruby on Rails, React Native, React, Docker, AWS, Git, VS Code, Jira, Nginx, Linux.