# Salah Mohamed

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#### **EDUCATION**

University of Minnesota - Minneapolis, MN

**Expected Graduation Date**: May 2026

Bachelor of Science in Computer Science and Data Science, GPA: 3.41

**Relevant Coursework**: Algorithms and Data Structures (IP), Calculus I-III, Advanced Programming Principles, Regression and Statistical Computing, Computational Linear Algebra, Machine Architecture and Organization

Honors & Awards: Dean's List (Spring 2023)

## **SKILLS & CERTIFICATIONS**

- Skills: Java, C/C++, Python, x86-64 Assembly, R, OCaml, Jira, Kanban, Git, GitHub, AWS Lambda
- Certifications: CodePath Intermediate Technical Interview Prep (Jun 2024 Aug 2024)

### **EXPERIENCE**

## Boston Scientific - IT Digital Marketing Intern | Arden Hills, MN

Jun 2022 - Aug 2022

- Collaborated with the digital marketing team to strategize, plan, and execute website development projects for a
  major medical device manufacturer, aimed at enhancing user experience and achieving business goals.
- Applied advanced data analysis techniques on VIP Data to project future costs, resulting in a 33% increase in net sales.
- Leveraged skills in Jira for project management and tracking throughout the analysis process.
- Suggested strategies for integration of AEM Next-Gen Architecture by utilizing Jira and Kanban, enhancing search engine capabilities with COVEO AI.

## Accenture - Summer Intern | Minneapolis, MN

Jun 2021 – Aug 2021

- Participated in a 6-week summer internship emphasizing business culture, inclusion/diversity and skills development, with a focus on professionalism in remote environments through emerging technologies and problem-solving.
- Collaborated with other interns to present a comprehensive biomedical programming presentation, successfully
  engaging executives and resulting in valuable networking opportunities and connections with Accenture executives
- Actively participated in workshops on business data analytics trends, increasing efficiency by 30% by applying the insights gained.

#### **PROJECTS**

### **Stock Price Predictor - Lead Developer**

View Project | May 2024 - Jun 2024

- Developed a predictive model for historical NASDAQ stock prices using training and validation with Python, applying Pandas for data manipulation, NumPy for numerical computations, and Matplotlib for data visualization.
- Applied Linear Regression to predict future stock closing prices, resulting in a precise prediction within a 1-3% margin relative to adjusted closing prices.
- Evaluated predictor accuracy using error methods such as MSPE, MAE, and R-Squared using Scikit-Learn.

#### **Dynamic Memory Allocator - Developer**

View Project | Apr 2024 - May 2024

- Contributed as an algorithm developer within a team, optimizing memory allocation techniques for system stability.
- Implemented efficient memory allocation using doubly linked lists in C, verified by Valgrind testing for memory leak detections and optimizations. This approach led to a 20% improvement in software performance.
- Resolved heap memory allocation bugs, ensuring stable program operation through rigorous testing and debugging.

## **Spell Check Program - Developer**

View Project | Jan 2024 - Mar 2024

- Engineered the hash function for lookup and insertion optimizations, improving overall performance and efficiency.
- Accomplished a functional dictionary as measured by optimization of around 40-50% by doing hash table implementation with hash collision detection in C, Valgrind, and data structures like variations of linked lists.
- Deployed an interactive command-line interface in C to improve data lookup, insertion and organization capabilities.

#### **LEADERSHIP & AFFILIATIONS**

CodePath | Community Member | Remote

Management Leadership of Tomorrow | Career Prep Fellow | Remote

ColorStack | Fellow | Remote

Jun 2024 - Aug 2024

Dec 2023 – Present

Nov 2023 - Present