

# ABRAR RHINE

Software Engineer | AI/ML Engineer



## **EDUCATION**

Virginia Tech | Blacksburg, VA.

• Master of Engineering in Computer Science (Concentration: AI/ML) – GPA: 3.59/4.

• Bachelor of Science in Computer Science (Minor: Mathematics) – GPA: 3.57/4, Cum Laude. Graduation: May 2022

Northern Virginia Community College | Annandale, VA.

• Associate of Science in Engineering and Computer Science – GPA: 3.52/4.

**Related Coursework:** Advanced Machine Learning, Deep Learning, Natural Language Processing, Artificial Intelligence, Software Engineering, Web Application Development, Mobile Application Development, Theory of Algorithms, Data Structures & Algorithms.

#### **SKILLS**

**Programming Languages:** Java, Python, C, C++, Kotlin, Go, C#, R, HTML, CSS, JavaScript, PHP, SQL, ABAP, Ruby, Solidity. **Tools:** AWS, SAP, GCP, Linux/Unix, TensorFlow, PyTorch, NumPy, Scikit-learn, Matplotlib, Node.js, Git, Jira, Docker, Kubernetes. **Databases & Frameworks:** Firebase, MySQL, MongoDB, SQLite, React.js, Angular.js, Next.js, Bootstrap, Django, Spring Boot. **Other:** Problem Solving, Critical Thinking, Leadership, UX Design, Sketching, Painting, Typography, Technical Writing.

#### **EXPERIENCE**

Sr. Software Development Engineer, Raytheon Technologies (Collins Aerospace) | Charlotte, NC.

June 2022 - Present

Graduation: May 2023

Graduation: May 2020

Building application solutions using ABAP, HANA and SQL, and performing data analysis using Python.

Software Developer, Systems & Planning Analysis, Inc. | Alexandria, VA.

December 2022 – May 2023

- Built responsive webpages using HTML, Bootstrap and JavaScript for clients to manage a project portfolio worth over \$4bn.
- Built a keyword-based search engine for 20,000+ documents using **Apache Solr** and developed front-end using **Angular.js**.
- Improved existing webpages by optimizing page speed by 80% and working collaboratively using **Git** with other developers.

Software Development Engineer Intern, Raytheon Technologies (Collins Aerospace) | Charlotte, NC. May 2022 – August 2022

- Developed application solutions using **ABAP**, **HANA** and **SQL**, and GUI which are used by 250+ technicians on daily basis.
- Increased user productivity by 50% by developing GUI using SAP Screen Personas and automating tasks using JavaScript.
- Optimized the performance of existing features by refactoring code, conducting usability testing, data analysis and research.

**Web Developer**, Department of Mathematics at Virginia Tech | Blacksburg, VA.

November 2021 – May 2022

- Provided 500+ students with study materials by developing webpages using PHP, HTML/CSS and stored all data in MySQL.
- Improved usability and increased users' average time on the website by 80% by modifying existing and adding new web pages.

#### **PROJECTS**

**Transaction Classifier** (Solo Project: Natural Language Processing)

February 2023 – April 2023

- Built a model to predict categories of transactions and identify frequent purchases using TensorFlow, NumPy & Scikit-learn.
- Achieved 88% accuracy in predicting categories of 10,000 unique transactions by training the model with 40,000 transactions.

Traffic Sign Recognizer (Solo Project: Deep Learning)

February 2023 – April 2023

- Developed a traffic sign recognizer by using a Vision Transformer (ViT) model and trained it on a dataset of 39,209 images.
- Achieved 99.76% accuracy in recognizing 12,630 images of traffic signs by tuning the hyper-parameters and adding features.

IOP Asset Tracker (Group Project: Capstone Project)

February 2023 – April 2023

- Led a team of 5 students and built an NLP model to classify texts based on topics for a company named IntegrityOne Partners.
- Developed a BERT-like model, built front-end using **React.js**, and presented final product to the client meeting the deadline.

**Textbook Buddies** (Group Project: Mobile Software Development)

February 2021 – May 2021

- Built a textbook trading android app for Virginia Tech students using **Android Studio (Java)** with a team of four people.
- Developed prototype using **Figma**, designed and implemented the login system and the homepage, and stored data in **Firebase**.

### **CERTIFICATIONS & AWARDS**

- \* AWS Machine Learning Specialty Certification
- Google TensorFlow Developer Certification
- \* AWS Developer Certification
- \* Kubernetes Application Developer Certification

Scholarships: VTNETS: \$20,000 towards undergraduate study; VTech Talent Graduate: \$15,000 towards graduate study. Dean's List: Fall 2018, Spring 2019, Spring 2021, Spring 2022.

# **LEADERSHIP & CAMPUS ACTIVITIES**

XYZ Art Gallery, Art Gallery Lead (August 2021 – May 2022): Organized art exhibitions and sold \$10,700 worth of artworks. Google Developer Students Club at Virginia Tech, General Member (2020 – 2022): Attended hands-on-workshops about Flutter. Virginia Tech AI & ML Club, General Member (2020 – 2023): Attended weekly meetings and discussed various ML models.