ARYA KUMAR

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EDUCATION

Texas A&M University | Bachelor of Science in Computer Science, Minor in Mathematics — Dec 2026
- Student in the **Engineering Honors** program enrolled in challenging **honors classes** and **research studies**.
- **Honors Coursework GPA: 4.0**
- **Relevant Coursework:** Software Engineering, Data Structures and Algorithms, Database Systems, OOP & FOP, Computer Organization, Computer Systems, C++, Python, Calculus, Linear Algebra

Austin Community College | Associate of Science in Mathematics — Dec 2025

EXPERIENCE

Software Engineer Intern | Lockheed Martin — May 2025 - Jul 2025
- Secured interim **Secret clearance** and developed within a secure, air-gapped **Linux** environment to support **F-35 CPSW** (Core Processing Software) automation for development and testing, part of an **Agile** (Scrum) team.
- Automated **hardware-in-the-loop (HIL) Python testing** of **RTOS software** on **F-35 test station** by updating 236 SWAT (Software Automated Testing) test scripts to accept dynamic hardware parameters, reducing certification time by **60%** and improving airborne software defect detection rate by **70%** for **F-35 Linux applications**.
- Provisioned and automated lifecycle management of six secure network machines as **GitLab Runners** from legacy **Jenkins nodes** using **Infrastructure as Code (IaC)**, streamlining **CI/CD workflows** that include pipelines for C++ and Python projects, integrating automated validation frameworks.
- Engineered **"Restartinator" pipeline** using **YAML** and **Python scripts** to automate the refresh of pipeline build nodes, improving deployment reliability and pipeline efficiency by **50%**.
- Automated migration of 8 repositories via **Python tooling** and updated **Jenkins pipeline configurations**, reducing migration efforts by **20%** and improving deployment stability by **15%** across distributed **Linux infrastructure**.
- Developed two **Python automation tools (546 LOC)** utilizing **GitLab/Bitbucket REST APIs** to aggregate open PR/MR metadata via a **Jenkins pipeline** and publish an hourly status dashboard to **Confluence**.
- Led a **1-hour training** on **GitLab's CI/CD environment** as part of upskilling the automation team, presenting my IaC-based provisioning of runners and automated "Restartinator" pipeline.

Ignite Accelerator Program | AI4ALL — Jan 2024 - May 2024
- Accepted into a virtual accelerator program to build an **artificial intelligence** portfolio project with a **team** alongside guidance from AI industry experts, concluded with a project presentation at a student symposium.
- Developed a **plant disease detection program** named "SproutDoc" utilizing **computer vision**, **convolutional neural networks**, and trained a custom **deep learning model** using a dataset of plant diseases with **94%** accuracy.

Credit Card Fraud Detection | Project — Jul 2024
- Developed a **machine learning pipeline** in **IBM Watson Studio** using **Pandas** and **Scikit-Learn** for data prep, feature engineering, and deployment.
- Engineered **transaction amount metrics**, **time-based aggregations**, and **merchant category indicators** to boost fraud sensitivity and reduce false negatives by **15%**.
- Trained **Logistic Regression, Random Forest, and XGBoost** on imbalanced data with **SMOTE** and **cross-validation** to achieve an **AUC of 0.97**.

SKILLS

Languages: C++, Python, Java, C#, C, Haskell, JSON, YAML, R
Databases: AWS
Libraries: Matplotlib, Scikit-learn, Pandas, Numpy, TensorFlow, OpenCV
Tools: Linux, Jenkins, Bitbucket, GitLab CI/CD, GitHub, Jira, Atlassian Software Suite, Microsoft Office Suite
Concepts: DevSecOps, DevOps, CI/CD, Infrastructure as Code (IaC), Object-Oriented Programming, Machine Learning, Agile

CERTIFICATIONS

Fundamentals Specialization | AWS — Jun 2025 - Aug 2025
- Architected **secure and scalable solutions** using **EC2**, **S3**, **RDS**, and **VPC** (subnets, load balancing, auto scaling).
- Configured **IAM roles and policies** and applied the **shared-responsibility model**.
- Monitored and **optimized resources** with **CloudWatch**, evaluated storage (**S3, EBS, RDS, DynamoDB**) and **API Gateway** use cases.

HONORS

Craig and Galen Brown Engineering Honors Scholar - Top **10%** of students accepted and awarded with honors — Aug 2024

Dean's Honor Roll - Maintaining a **3.75+ GPA** through rigorous and demanding engineering curriculum — 2024 - 2025

Gold | HackerRank - **Gold** badges in **C++**, **Python**, and **Java** with mastery in **algorithms** and **data structures**. — May 2022

AP Scholar with Distinction | College Board - Awarded for high-achieving scores on several AP exams — Jun 2022

High School Aerospace Scholars Alumni | NASA - Successful completion of **NASA's STEM courses** and **Moonshot** — Jul 2022