Ausaf Ahmed

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY Atlanta, GA

BS in Computer Science, concentration in Artificial Intelligence and Modeling/Simulation *August 2019 – May 2022*

- Zell Miller Scholar (**100% tuition**) GPA: 3.66/4.0
- **Graduated in 3 years with highest honors**

SKILLS

Programming: Java, Python, C, C++, Javascript, React, Node.js, SQL, Flutter, Assembly
Platforms: Linux, macOS, Windows, Android, iOS
Hardware: Raspberry Pi, Arduino, NodeMCU
Software: Databricks, Spark, Azure, AWS, OpenCV, Tensorflow, PyTorch, Git, ROS, Flask**,** Jira

EXPERIENCE

NCR Corporation | *Data Engineer* | Atlanta, GA *August 2022 —Present*

- Developed and maintained efficient ETL pipelines using Spark, Python, Scala, and Azure Databricks
- Created a cleansing pipeline using Delta tables which categorized and **labeled over 33 million transaction descriptions**
- Trained a BERT-style model to accurately recognize merchant names in financial transactions.

Amazon | *Software Development Engineer Intern* | Austin, TX *May —August 2022*

- Implemented Bluetooth communication features to test Alexa Mobile Accessory kit on Android devices
- Designed an algorithm to increase QA team's efficiency by dynamically adjusting the priority of test cases
- Implemented said algorithm into a full stack web application using Flask and deployed using AWS

NCR Corporation | *Data Engineering Intern* | Atlanta, GA *May 2021 – September 2021*

- Wrote Scala program that **calculated metrics for over 100TB of IoT diagnostics** data using AWS Deequ
- Created dashboards for visualizations to make it easy to identify cost increases for clients with over 200 million customers
- Built alerting system using Azure LogicApps to report anomalies, which **decreased incident response time by 90%**

NCR Corporation | *Software Engineering Intern* | Atlanta, GA *June – August 2020*

- Rewrote a legacy application for loyalty program management using React, Next.js, Typescript, and Material-UI
- Refactored monolithic transaction orchestration service into a modular microservice architecture using Node

Conserve Innovations | *Lead Systems Engineer* | Atlanta, GA *September 2019 – August 2020*

- Wrote Python module that controlled intake & shredder motors using serial communication between raspberry pi and arduino
- Developed a cross-platform mobile app using Flutter for users to track points earned and redeem rewards
- Implemented barcode identification pipeline that used OpenCV to identify product UPC and sort items based on material

Georgia Tech Research Institute | *Robotics Intern* | Atlanta, GA *June 2018 – August 2018*

- Worked alongside team which spearheaded a framework for robotic arms to perform dexterous manipulation tasks
- Wrote a full-featured control library for Robotiq 2F-85 Gripper in C++ using the provided datasheets
- Was nominated **most valuable team member** by fellow interns for taking initiative and sharing knowledge

PROJECTS

Robotics and Perception | code

- Researched and implemented algorithms including: rapidly exploring random tree, particle filter, and PID control

Systems and Networks | code

- Designed a datapath to implement a supplied instruction set architecture and wrote microcode for the CPU's state machine
- Implemented kernel level algorithms such as CPU scheduling, virtual memory, and networking in C

Campus Flow Simulation | video

- Designed and implemented a simulation of pedestrian flow around GT campus for Computer Simulation using Python and p5
- Our simulation identifies common chokepoints around campus, calculates accurate travel times, and displays traffic heatmaps

RedditClips

- Created web service which automated production of popular Reddit text to speech videos using Flask and React
- Implemented an asynchronous task queue which allowed multiple clients to render in parallel using Celery and RabbitMQ

SoundsLikeMe | code | video

- Created a machine learning pipeline to recommend similar-sounding songs for Machine Learning final project.
- Implemented a self-labeling approach to identify clusters using K-Means, and suggest songs using K-Nearest-Neighbors.

InvenTrack | video

- Created a full stack web, mobile, and IoT application for restaurant inventory management as an entry to UGAHacks 6
- **Won 1st place for most innovative product** that could be brought to market by NCR within 6 months

INTERESTS

- Soccer, Guitar, Aviation (Gliders), Anime, Philosophy, Sustainability, DIY, Computational Biology, Cybersecurity CTFs,