

Abhilash Chauhan

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EDUCATION

Virginia Tech – Bachelor of Science in Computer Science

GPA: 3.46/4.00 , 5-time Dean's List Member

Blacksburg, VA

August 2019 – May 2023

EXPERIENCE

Software Engineering Lead

Virginia Tech Auto-Delivery

August 2022 – Present

Blacksburg, VA

- Leading a team of 8 to develop software for Lockheed Martin's recovery and delivery UAV system for light manufacturing parts
- Training autonomous flight and sensor fusion models in Python to allow for simultaneous deliveries using multiple drones
- Developing a GUI in PyQt5 to allow a single drone dispatcher to effectively manage and assign tasks to all active drones
- Implemented an Agile SCRUM methodology using Jira and version control using Git to ensure smooth development

Undergraduate Research Assistant

genomeRxiv @ Virginia Tech Department of Computer Science

August 2022 – Present

Blacksburg, VA

- Responsible for containerizing entire genomeRxiv project to allow for execution of multiple instances of the code base
- Developing a RESTful API to allow for superusers to access LINbase without having to use the existing web interface
- Working with a team of 3 to migrate the current genomeRxiv static HTML/CSS website to a React application

Data Engineering Intern

Level Home Inc.

May 2022 – August 2022

Redwood City, CA

- Developed data pipelines to obfuscate and pre-aggregate data stored in PostgreSQL from smart-home products in real-time
- Improved developer performance by building dashboards for key metrics that updated with updates in the underlying DB
- Dockerized Debezium + Kafka + Materialize and InfluxDB + Grafana pipelines for deployment across multiple systems

Internet of Things (IoT) Intern

Dubai Technologies

May 2021 – August 2021

Dubai, UAE

- Built a real-time metrics monitoring solution for telemetry sensors installed in 12,000+ taxis in Dubai
- Used a Kafka + Spark + MongoDB pipeline that listened to a TCP server built in Go to parse and persist data in real time
- Auto-assigned flags and fines to taxi drivers that broke road laws such as over-speeding or not wearing a seatbelt
- Improved the Road and Transportation Authority of Dubai's driver performance by 41%

PROJECTS

GusJohnson2Stats | BeautifulSoup4, SpeechRecognition, NoiseReduce, TensorFlow

- Analyzed NFL commentary to update player statistics in a game on a play-to-play basis with an accuracy of 40%
- Used BeautifulSoup to gather list of players (with positions) for the requested game by parsing the specific NFL Gamebook
- Developed a noise reduction model to remove loud background noises using NoiseReduce and Dolby's Media Enhance API
- Trained a natural language processing model in TensorFlow to update statistics based on the transcript of the commentary

Auto-Tok | Python Reddit API Wrapper (PRAW), Selenium, pyttsx3, MoviePy

- Scraped through posts on reddit using PRAW to find interesting posts with good engagement (comments and upvotes)
- Automatically created videos using Selenium to take screenshots of the comments and pyttsx3 to perform text to speech
- Combined the audio generated and screenshots taken using MoviePy to create an attention-drawing, TikTok-ready video

EXTRA-CURRICULARS

Virginia Tech Softball Analytics Team

Provided coaches with data analysis and visual aids to review and improve team performance through analysis of individual player performance and past performances of future opponents to find and possibly exploit weaknesses

Senior Computer Science Ambassador

Selected to represent the Computer Science department on boards such as the Undergraduate Programs Committee. Also responsible for 10+ ambassadors and for organizing events throughout the year to help students successfully navigate CS @ VT

TECHNICAL SKILLS

Languages: C, C++, Java, Python, Scala, Go, R

Frameworks: Kafka, Spark, MySQL, MongoDB, PostgreSQL, Hive, Hadoop, Tensorflow, Scikit Learn, PowerBI, Tableau

Developer Tools: Git, Docker, VS Code, PyCharm, IntelliJ, Eclipse, Anaconda

Certifications: Google Data Analytics Professional Certificate, AWS Certified Cloud Practitioner (in-progress)