

# ALFIN ABRAHAM

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## EDUCATION

### Master of Science in Computer Science, Specialization in Data Science

September 2022 - June 2024

Seattle University

Seattle, WA, USA

- **Awards:** Dean's Graduate Student Honor Roll
- **Coursework:** Machine Learning, Artificial Intelligence, Cloud Computing, Software Testing & Debugging

### Bachelor of Technology in Computer Science and Engineering (AI)

September 2018 - May 2022

Medicaps University

Indore, MP, India

- **Awards:** First Division with Honours
- **Coursework:** Operating Systems, Computer Networks, Compiler Design, Software Engineering, ML, AI

## EXPERIENCE

### Data Analyst

August 2025 - Present

Dreamline AI

Wethersfield, CT, USA

- Built automated web scraping pipelines using Scrapy and Playwright to collect property ownership data from 67 Florida counties, reducing manual data collection time by **80%** (from 30 to 6 hours/week).
- Processed and validated **2M+** property records through standardized data cleaning workflows, identifying **250K+** high-value prospects and enabling targeted marketing decisions for customer acquisition.
- Developed analytics experiments proving platform value by demonstrating how matching homeowner renovation projects with local, state, and federal incentive programs delivers quantifiable cost savings for customers, supporting data-driven marketing decisions.
- **Tech Stack:** Python, Scrapy, Playwright, pandas, Excel, MySQL, Git, Jupyter.

### Data Analyst

September 2024 - August 2025

Community Dreams Foundation

Wethersfield, CT, USA

- Led the design and implementation of a scalable synthetic data pipeline using LLMs (ChatGPT-4o, Claude 3.5 Sonnet) with extensive **prompt engineering** and **RAG** to train CDF's ML-powered resume analyzer, addressing data quality and privacy compliance gaps across 35 evolving job roles.
- Achieved **96.2%** model testing accuracy through iterative development sprints using agile principles, delivering structurally consistent, trend-aligned training data **65%** faster than prior methods and significantly accelerating candidate screening for internal HRMS workflows.
- **Tech Stack:** PostgreSQL, Python, Excel, Tableau, AWS EC2, AWS S3, Selenium

## PROJECTS

### Real-Time ASL to Speech Translation System: Enhanced ASL Gesture Interpretation

- Engineered a real-time ASL-to-speech interpreter that **boosted** gesture detection accuracy by **80%**, leveraging MediaPipe for advanced hand tracking and achieving a **46% baseline translation accuracy** on complex signs.
- Integrated **OpenAI GPT-3.5** to contextually refine missed or low-confidence predictions from the I3D model (threshold **0.5**), significantly improving overall interpretation reliability.
- Implemented real-time text-to-speech synthesis with **gTTS**, generating rapid, natural-sounding audio output directly from live ASL gesture inputs for seamless user communication.
- **Tech Stack:** Python, MediaPipe, I3D, OpenAI GPT-3.5, gTTS, Computer Vision, HTML, CSS

### Stormtroopers-Space Explorer: Innovative teaching tool for elementary school

- Developed a **full-stack educational web** app in C#, ASP.NET Core, JavaScript, HTML, CSS, and Bootstrap, using modular architecture, reusable UI components, and SOLID principles to ensure scalability and maintainability.
- Maintained **85%+ test coverage** with unit, integration, and end-to-end tests, enforcing reliability through CI workflows, peer code reviews, and iterative development in a 3-member agile team.
- Deployed production builds to Azure with clean, reliable release pipelines at the end of each 7-day sprints.
- **Tech Stack:** C#, ASP.NET Core, JavaScript, HTML, CSS, Bootstrap, Azure, GitHub, Agile/Scrumban

## SKILLS

**Programming Languages:** Python, HTML, CSS, C, C++, C#

**Tools:** Excel, Tableau, Power BI, Docker, Kubernetes, Postman, Figma

**Cloud Technologies:** AWS (EC2, S3, RDS, DynamoDB, Lambda, VPC, SageMaker, QuickSight), Azure, GCP

**Frameworks:** Django, Flask, pytest, Scrapy, Playwright, Selenium

**Libraries:** spaCy, PyTorch, TensorFlow, pandas, NumPy, Matplotlib, Plotly, D3.js, scikit-learn, Seaborn, boto3

**Databases:** MySQL, PostgreSQL

**Soft Skills:** Analytical Thinking, Communication, Detail-Oriented, Problem-Solving, Teamwork, Accountability