# Drew Scatterday

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Languages:	Python, Scala, JavaScript, C++
Frameworks:	Spark, Pandas, DuckDB, Pytest
Tools:	Git, Docker, Digital Ocean, AWS EC2/Polly

#### Experience

Skills

#### Software Development Engineer, Esri - San Diego, CA

- Developed server to poll 300 IoT field devices every minute, enabling New Jersey DOT to visualize sensor data in real-time and improve traffic management
- Engineered custom ArcGIS Pro tool with DuckDB, enabling customers to seamlessly work with big data formats like Parquet, processing 30 million geospatial records efficiently
- Optimized insurance customer analytics using Spark to process 10 million geospatial records, cutting computation time from 6 days to 1 hour, enhancing disaster response and risk evaluation
- Built Node.js server with DuckDB, enabling customers to integrate external Parquet files into ArcGIS dashboards, efficiently handling 47 million geospatial records

## Data Science Consultant, Esri – San Diego, CA

- Deployed custom tool to process five years of crash data, aiding Oakland DOT in identifying high-injury road networks for targeted safety improvements
- Implemented image processing tool for US National Ice Center, streamlining the analysis of 500 satellite images, reducing daily manual inspection time
- Trained deep learning model on 30,000 panoramic images and point cloud data, aiding Meta in improving security measures and updating their building assets database
- Streamlined Azure server setup by automating a 30-minute manual process, increasing team productivity by reducing time spent on development server configuration
- Conducted exploratory data analysis on 100,000 rows of lake sensor data, supporting the creation of a deep learning model for predicting algae blooms on Lake Okeechobee

## Data Science Intern, Esri – Morgantown, WV

• Implemented deep learning model for ice segment detection in satellite imagery, achieving 70% intersection over union improving the US National Ice Center's manual labeling process for maritime navigation

## Software Engineer Intern, syGlass - Morgantown, WV

- Streamlined AWS server management by reducing setup time from 30 minutes to 1 minute, leading to more efficient multiplayer server deployments
- Improved the VR folder system to streamline project file management and increase user accessibility
- Developed a feature for Python API to export 3D raster data to NumPy, streamlining data transfer
- Integrated open source deep learning model Star Dist into syGlass, enabling automated 3D cell detection

## Software Engineer Intern, NASA - Fairmont, WV

• Automated flight software file generation from 45 minutes to 1 minute, greatly increasing testing efficiency

## Projects

## **TradingLab** Python, C++, AWS

• Created license management system that handled \$500,000 yearly by integrating with Chargebee API

## DiscordTTSBot JavaScript, AWS

• Developed a text-to-speech bot utilized in 2,400+ servers that processed 10 million characters monthly

Education

Oct 2019 — May 2021

Oct 2021 — Jan 2025

Jan 2025 — Present

# May 2021 — Aug 2021

May 2018 — Aug 2018

github.com/drewscatterday/DiscordTTSBot

tradinglab.ai