

CS Field Session

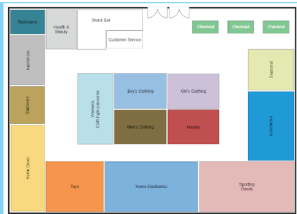
Chirp Multimedia

CV - Automated Floor Planogram Ingestion

ABOUT Chirp

Chirp Multimedia is a Retail AI company founded in Golden Colorado through the Mines Entrepreneurship & Innovation Venture Center. Chirp's value comes from our full in-store data pipeline, combining demographics analysis, postural analysis, and full digital twin creation to find insights about customer behavior and showcase them in an easy to use way, allowing retailers to better serve their customers through understanding the customer journey. The data collection and initial analysis occurs completely in-store, using the most modern technology in edge based devices directly integrated with in-store security cameras. This allows for higher levels of data security and a much higher efficiency. The data collected and processed is fully anonymized and provided directly to the retailers through an online platform, allowing them to see insights on who their customers are, where they go, what they interact with, and what they miss out on, among many other valuable insights.

The Project: At chirp we are looking to revolutionize in-store retailer knowledge and customer experience. This project will aid in that effort by creating an automated way to ingest planograms, a tool used in selling space to manufacturers/designers in-store, as well as the aesthetic design of the store. These planograms are zoned off and categorized based on the products within them. In this project you will use CV to scan in an image of the floor plan and the product category zones listed within, and then correlate the product SKU numbers that are associated to product categories to their location in the store. These digitized zones will be used as data filters in the future, helping retailers to better understand product/store interaction. Barriers to adopting this technology will significantly decrease by automating zones of interest within the store, creating a more scalable product. In this project you will have access to internal Nvidia ML/CV courses, our AWS database, and points of contact within our development team, as well as within AWS and Nvidia. Suggested team size: 4-5.



Automate ingestion of planograms using computer vision



Port the edge computed CV text data to the AWS database



Match SKU's to specific zones within stores.

Internships

Upon completion of CS Fall Field Session, Chirp is open to discuss internship opportunities.

Work Site

Meetings for this project will be held at 1600 Jackson St on campus or utilize other university facilities. Remote or university facilities for working in between meetings is acceptable.

Resources

CV & AWS database advisors will be available for periodic meetings/aid. All hardware needs will be funded. (Recommendations will be available)

Skills

Computer Vision - AWS Database - SQL - Machine Learning - Cloud Architecture - Data Analytics

Opportunity

Gain invaluable experience in start-up culture product ideation, develop commercially viable tools from concept to market, and future considerations for longterm employment in an innovative company.

Guidelines

All tech developed has to be viable for commercial deployment without license requirements. The development done in this class will be owned by Chirp but will be made available for non-compete licensing.