Carter Louchheim

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EDUCATION

Williams College, Williamstown, MA

Expected June 2025

Bachelor of Arts; Computer Science, Cognitive Science; GPA 3.85, Dean's List

Relevant Coursework: Data Structures, Advanced Programming, Algorithms, ML, NLP, Robotics, Graphics

WORK EXPERIENCE

Wellsky, Software Engineer Intern

Summer Intern 2023

- Developed Python scripts to evaluate InnerSource projects across GitHub repositories.
- Created a dynamic user interface for visualizing project performance, improving accessibility of insights.
- Automated workflows in Airflow and integrated SQL databases with Python to streamline data analysis.

U.S. Ski & Snowboard Team, High Performance Data Analytics Intern

Summer Intern 2024

- Engineered web applications to visualize alpine skiing training data, enabling coaches to give novel and more granular feedback to their athletes.
- Designed and implemented interactive dashboards for analyzing novel GPS and biomechanical datasets.
- Delivered insights through statistical analysis, influencing key decisions on national team criteria creation.

Collective[i], Remote, Product Management Intern

Summer Intern 2022

- Collaborated with developers to define requirements for Al-powered analytics solutions.
- Conducted technical research on data virality and synthesized findings into actionable product strategies.
- Assisted in delivering agile sprint milestones, contributing to the Intelligence.com product launch.

910 Media Group, Data Analytics Consultant

November 2024 - Present

- Partnered with stakeholders to deliver targeted advertising insights through advanced data analysis.
- Presented data analysis to executives, enabling advertising approaches refined to demographic data.
- Extracted and visualized actionable insights from data using R, SQL, and API's and visualization tools.

PROJECTS

Low-Resource Neural Machine Translation (Bachelor's Thesis), Williams College

August 2024 - Present

- Built a modular NLP pipeline for translating Spanish to 11 indigenous American languages.
- Leveraged PyTorch and Hugging Face for model optimization, fine-tuning and from scratch training.
- Designed reusable code for data preprocessing, training, and evaluation allowing for diverse research.

Al-Driven Avalanche Condition Prediction for the Wasatch Mountains

2024 - Present

- Developed a recurrent neural network to predict avalanche conditions with 75% accuracy.
- Integrated advanced data engineering techniques to improve feature extraction.

Innersource Audit Tool, Wellsky Internship

Summer 2023

- Designed and implemented a GitHub-based repository auditing tool using Python and SQL.
- Built a responsive UI for automated visualization of utilization metrics.

SKILLS

- Programming Languages: Python, Java, React.js, SQL, JavaScript, R, C, C++
- Frameworks & Tools: Git, Airflow, GCP, APIs, PyTorch, Hugging Face, Pandas
- Software Development: Full-stack development, modular design, agile methodologies
- Soft Skills: Communication, teamwork, problem-solving, technical writing, LLM prompting

ACTIVITIES

Williams College NCAA Division I Alpine Ski Team, Member

August 2022 - Present

Robotics Lab Student Supervisor

January 2024 - May 2024