Alex Lin

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PROFESSIONAL SUMMARY

Data Scientist skilled in statistical modeling, machine learning, and data visualization. Experience in applying advanced analytics to extract actionable insights and drive data-informed decisions. Proven ability to develop and implement predictive models, optimize data processes, and communicate complex findings to diverse stakeholders.

Programming Languages: Python, SQL, R, Git
Libraries: Pandas, NumPy, SciPy, Matplotlib, Seaborn, TensorFlow, PyTorch, Keras, OpenCV
Cloud Technologies: AWS, Snowflake, MongoDB
Data Visualization: Tableau, Plotly Dash, Streamlit, Power BI
Certifications: PCEP—Certified Entry-Level Python Programmer

EDUCATION

Master of Science in Analytics: Institute for Advanced Analytics, NC State University | Raleigh, NC — May 2025
Bachelor of Science in Statistics and Analytics: UNC Chapel Hill | Chapel Hill, NC — May 2024

PRACTICUM

Axios | Communication Lead — Aug. 2024—Current

- Built targeted user segments by analyzing 600+ GB of behavioral data, identifying high-engagement users and optimizing Axios' content strategy.
- Developed predictive models using logistic regression and clustering to forecast newsletter churn and site ad impressions, driving strategic audience retention efforts.
- Refined marketing strategies by leveraging SQL and pandas to extract key user behaviors, enabling personalized content recommendations.
- Led data ethics initiatives by ensuring compliance in data handling and maintaining high standards in analytical transparency.

WORK EXPERIENCE

Raleigh Stormwater| **Data Scientist Intern** | Raleigh, NC — June 2023—Aug. 2023

- Enhanced flood prediction accuracy by developing models that improved evacuation lead times by 30 minutes, increasing community safety.
- Analyzed 2M+ rainfall data points using R and Power BI to identify high-risk flood zones, shaping data-driven mitigation strategies.
- Integrated GIS mapping with flood risk analysis, creating interactive visualizations that improved emergency response planning.
- Influenced policy decisions by presenting findings at bi-monthly Stormwater Management Advisory Commission meetings, ensuring data-informed city planning.

PROJECTS

Mario Party DS Automation | Computer Vision & Automation | *Python, OpenCV, PyAutoGUI*

- Engineered real-time object detection for DS minigames, achieving 99% accuracy in automated gameplay.
- Designed custom AI algorithms for button prompt detection and touchscreen simulation, reducing reaction time by 70%.

ASCII Video Converter | Computer Vision & Video Processing | *OpenCV, NumPy, Pillow*

- Developed a video-to-ASCII conversion tool, transforming videos into low-resolution ASCII animations.
- Implemented efficient edge detection and frame sampling, improving processing speed by 40%.
- Refined character mapping algorithms, enhancing grayscale representation and visual output quality.

NC State Women's Tennis Analytics Dashboard | Data Visualization & Sports Analytics | *Tableau, Python*

- Developed an interactive Tableau dashboard to visualize performance for 50+ players across 200+ matches.
- Designed 5+ dynamic visualizations, including win-loss trends, serve efficiency, and player leaderboards, providing actionable insights for coaches.
- Optimized UI/UX elements, enhancing dashboard readability and usability, leading to a 40% increase in engagement from coaching staff.