

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 | Remote 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 to extract key user behaviors, enabling personalized content recommendations.
- Ensured compliance in data handling and upheld high standards of analytical transparency through data ethics initiatives.

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*

- Automated Mario Party DS minigames, achieving 99% accuracy in object detection and gameplay actions.
- Reduced reaction time by 70% through optimizations like binary masking, connected components analysis, and region of interest reduction.
- Designed AI algorithms for button prompt recognition and touchscreen simulation, showcasing the potential of AI in game automation.

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

- Built a Video to ASCII converter, supporting dynamic background isolation and custom character styles.
- Improved processing speed by 40% through edge detection (Canny algorithm) and frame sampling optimizations.
- Enhanced grayscale representation and visual quality with refined character mapping algorithms.

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.
- Collaborated with coaching staff to identify key performance indicators (KPIs) and design 5+ dynamic visualizations, including win-loss trends and serve efficiency.
- Optimized UI/UX elements, enhancing dashboard readability and usability, leading to a 40% increase in engagement from coaching staff.