Ava Gonick

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EDUCATION

University of California, Los Angeles (UCLA)   *Los Angeles, California*
B.S. in Computational and Systems Biology, Minor in Data Science Engineering   *December 2025*
GPA: 4.0/4.0
Relevant Coursework: Machine Learning, Data Science, Probability, Computer Vision, Data Structures, Object-Oriented Programming, Algorithms, Computer Organization, Computational Modeling, Discrete Math, Linear Algebra

Cornell University: online certificate in Machine Learning Foundations   August 2024

DEVELOPER SKILLS

- **Languages:** Python, SQL, C++, Linux/Unix, JavaScript, HTML, CSS, SAS
- **Technologies:** Scikit-learn, Keras, Pytorch, Pandas, NumPy, Matplotlib, Git, React, Excel, VS Code, Microsoft Office

TECHNICAL EXPERIENCE

Chiang Lab, UCLA — Machine Learning Researcher   *November 2023 - Present*
- Developing a postoperative medical complications prediction model for surgeries using UCI hospital data to support the validation of a UCLA model and the creation of a bedside risk prediction tool for real-time use during surgery
- Utilize a remote **Linux/Unix** server for cloud-based development, ensuring efficient data storage and file execution
- Developed a machine learning algorithm in **Python** using **Sklearn** and **Matplotlib** to diagnose Urinary Tract Disease from Electronic Health Record symptom data, and performed feature selection to reduce 200 features to 50

DirecTV— AI Studio Intern   *August 2024 - December 2024*
- Conducted feature importance analysis on Neural Networks **(Keras)** and Gradient Boosted Trees **(Scikit-learn)** to identify the top 30 attributes distinguishing low versus high restaurant ratings, improving model accuracy by 18%
- Applied Natural Language processing on Yelp restaurant reviews to identify the top 5 common customer complaints and develop recommendations for over 2000 low-rated restaurants to improve customer satisfaction

Neurocrine Biosciences — Clinical Data Management Intern   *June 2024 - August 2024*
- Automated clinical trial data quality control using **SAS** and **SQL**, reducing QC time from 5 hours to 5 seconds, increasing accuracy by 25%, and ensuring data is protocol-compliant and uploads properly into the clinical trial database
- Assumed responsibility for an ill Senior Manager, cleaning 20 clinical trial datasets in **SAS** for FDA compliance review, successfully delivering the 2-week project on time
- Showcased intern project to 50 employees, translating complex programming logic for diverse technical backgrounds

Burning Rock Dx — Bioinformatics Intern   *September 2023 - June 2024*
- Analyzed over 1500 DNA sequences in **Python** to identify patient DNA factors impacting clinical trial outcomes
- Manually reviewed DNA mutations in **Excel** to eliminate false positives, increasing accuracy of mutation calls by 25%

PERSONAL PROJECTS

Twitter Sentiment Analysis — ACM AI   *March 2024 - June 2024*
- Created a sentiment analysis model using BERT to classify millions of tweets with over 70% accuracy
- Implemented a transformer model for sentiment analysis from scratch in **Python** using **PyTorch**, enhancing model accuracy through hyperparameter optimization, achieving 2nd highest accuracy out of 50 models in project competition

LEADERSHIP EXPERIENCE

Break Through Tech AI — AI/ML Fellow   *May 2024 - Present*
- Selected from 3,000+ applicants for fellowship program supporting women in AI, focused on professional development
- Built 15 data analysis pipelines and machine learning models in **Python**, implementing Linear and Logistic regression using **NumPy** and building Convolutional Neural Networks and Deep Averaging Networks with **Keras** and **Scikit-learn**

UCLA Crafting For Cancer – President, Front-End Developer   *June 2022 - Present*
- Maintain a responsive multipage website with over 1000 monthly users using **HTML**, **CSS,** and **JavaScript**
- Spearheaded initiatives with board members to double club membership to 50 active members by leading recruitment efforts on social media, launching a stuffed animal making program, and establishing crochet mentoring
- Established partnerships with Jessie Rees Foundation and UCLA Health, to donate 1500+ beanies to cancer patients