GURNOOR BOLA

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EDUCATION

University of California - San Diego **September 2025 - June 2027**
Bachelor's, Computer Science *GPA: 3.94*
- Relevant Coursework: Data Structures & Algorithms, Computer Systems & Architecture, Graphics, Linear Algebra, Probability & Stats

Cornell Tech **July 2025**
Certification, Computer Science
- Certificate in Machine Learning Foundations (Traditional ML and Deep Learning, including LLMs and Computer Vision)

EXPERIENCE

Automation Anywhere **San Jose, CA, USA**
AI Studio Intern *August 2025 - Present*
- Engineered a multi-stage Computer Vision pipeline to detect document forgery, utilizing cutting-edge models like YOLOv11 and Detectron for accurate signature feature extraction.
- Achieved 99% feature detection accuracy for signatures, dates, and various fields across a variety of document types by implementing a hybrid classification architecture (YOLO for detection; ResNet/Inception for classification).
- Developed a Streamlit dashboard for real-time visualization of model outputs and performance, enhancing the readability of results for the team and stakeholders

Break Through Tech **Remote**
Fellow *May 2025 - Present*
- Selected from 3000+ applicants for the Break Through Tech AI Program at Cornell Tech
- Participant in 12-month long program that includes technical coursework, experiential learning, mentorship, and career development events

United States Air Force Academy **Remote**
Software Developer Intern *September 2024 - May 2025*
- Delivered secure user authentication by implementing Azure PlayFab authentication system using C# and Azure services, streamlining account management for potential users
- Improved game performance by 20% by optimizing game save functionality and refactoring 1000+ lines of legacy code using Unity and C#
- Enhanced user accessibility by integrating multilingual support for 3 languages using localization frameworks, expanding potential user base by 200%

PROJECTS

Airbnb Price Regressor - *Link to project*
- Delivered 56% variance explanation in Airbnb rental price data by developing a Random Forest Regression model using Python and scikit-learn
- Evaluated various models to test tradeoffs of others algorithms such as Gradient Boosted Decision Trees and Linear Regression
- Improved predictive power by 10% through feature engineering techniques such as scaling and encoding of data

Web Minecraft Clone - *Link to project*
- Built a browser-based voxel engine with WebGL, capable of rendering worlds up to 100k+ blocks
- Implemented a chunk system enabling stable 60+ FPS performance across devices
- Optimized rendering pipeline, cutting draw calls by 80% through frustum culling and mesh batching

Chip-8 Interpreter - *Link to project*
- Developed an interpreter for the CHIP-8 system in C++ and OpenGL, successfully emulating full architecture including 36 opcodes and core system functionality.
- Engineered multithreading and efficient memory management to parallelize CPU/GPU tasks, achieving a 20% improvement in real-time emulation performance.
- Integrated backwards compatibility features to allow seamless transition between different CHIP-8 variants

SKILLS

Programming & Libraries: Python, C/C++, JavaScript, HTML/CSS, WebGL, Scikit-learn, Keras, Pandas, Matplotlib, SQL, Pytorch, R, NumPy
Tools & Platforms: Git, Linux/Unix, Unity, Microsoft Azure, Playfab, Docker, Jupyter, VMware

AWARDS

Ruth and Norman Rales Scholarship
- Recipient of a 4 year scholarship based on academic excellence, leadership and community service

Cadence First-Generation Scholarship
- Awarded for academic excellence and leadership in tech