SYED RIZWAN UDDIN

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EDUCATION

San Jose State University **May 2028**
B.S., Computer Science and Linguistics (GPA: 3.5) *San Jose, CA*

International Indian Public School Riyadh **Apr 2024**
Higher Secondary School (CBSE Board) *Riyadh, Saudi Arabia*

SKILLS

- **Programming Languages:** Python, SQL, Java, JavaScript, HTML, CSS
- **Machine Learning & Data Science:** PyTorch, Hugging Face Transformers, Scikit-learn, Model Evaluation-, Multi-Agent Systems, Data Science, Statistical Modeling, Feature Engineering
- **Data Analysis:** Pandas, NumPy, SciPy, Matplotlib, Seaborn, Time Series Analysis
- **Computer Vision:** OpenCV, Real-Time Inference, Transformer-Based Detection
- **Tools & Platforms:** Jupyter Notebook, Google Colab, Git, Flask, Tableau, Power BI, Cloud Platforms

PROJECT EXPERIENCE

Computational Bioinformatics Research | ***San Jose State University*** **Mar 2025 - Present**

- Analyzed 500+ synthetic RNA riboswitch sequences to distinguish functional and defective designs targeting viral RNA (Coxsackie B3)
- Investigated relationships between RNA free energy, binding behavior, and sequence patterns across 1,000+ data points using Python and pandas
- Developed Python scripts to identify extreme binding cases across 20+ negative viral targets to support hypothesis-driven analysis
- Processed RNA structure and sequence data generated using ViennaRNA with 95%+ accuracy in feature extraction

Real-Time Object Detection using Transformers | ***Independent Project*** **Dec 2025**

- Integrated pretrained DETR transformer model with PyTorch to perform real-time inference at 15-20 FPS on live webcam video
- Processed 1,800+ frames per minute to generate bounding boxes and class predictions across 80+ object categories
- Achieved 85%+ detection accuracy on common objects with zero model training required

AI-Powered Gene Search Application | ***Indepedent Project*** **Nov 2025**

- Built a full-stack web application serving 100+ gene queries with real-time NCBI data retrieval and AI-generated summaries
- Integrated NCBI E-utilities API with Flask backend to process and transform 50+ structured biological metadata fields into human-readable insights

PROFESSIONAL EXPERIENCE

NeuralSeek | ***AI Agent Development Intern*** **Aug 2025 - Nov 2025**

- Completed Level 1-3 NeuralSeek certifications, applying statistical modeling techniques to design agentic AI architectures, orchestrate multi-agent systems, and develop enterprise AI solutions
- Gained hands-on experience with system-level AI behavior, reliability, and deployment considerations on cloud platforms
- Built scalable data pipelines and analytics layers for AI-powered decision systems, leveraging data science best practices and Python scripting
- Developed feature engineering and prompt optimization frameworks to enhance AI agent performance and user satisfaction across customer deployments

ACTIVITIES

Bioinformatics & Autonomous Systems | ***Undergraduate Researcher*** **Sep 2024 - Present**

- Exploring hybrid research directions including biologically-inspired autonomous systems and AI-driven biological discovery
- Developing technical foundation for future PhD research at intersection of AI, autonomy, and healthcare