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% clear all header and footer fields
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% Sections formatting
% Ensure that generate pdf is machine readable/ATS parsable
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SRI UJJWAL REDDY BEEREDDY

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%-----EDUCATION-----
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EDUCATION

Arizona State University (4.0 GPA) & Tempe, AZ
Bachelor of Science in Computer Science (Software Engineering), Minor in Entrepreneurship & Aug 08/2022 – May 05/2026

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%-----EXPERIENCE-----
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EXPERIENCE

- Software Engineering Intern (Machine Learning) & Jul 07/2024 – Present
Geometric Media Lab & Tempe, AZ
• Engineered a hybrid ML pipeline combining k-means clustering with a supervised neural network for gunshot detection, boosting accuracy from 20% to 80% on 10+ hours of audio data processed via Librosa and iterative model refinement.
• Optimized edge deployment by tailoring the ML pipeline for Raspberry Pi via hardware-specific adjustments and a custom microphone setup, ensuring real-time performance in resource-constrained forest environments.
• Integrated a dynamic feedback loop to continuously refine predictions and improve noise differentiation, securing scalable analysis under diverse conditions and enhancing model robustness.
- Software Engineering Intern (Machine Learning) & Jan 01/2023 – Dec 12/2024
ASU Biodesign Institute & Tempe, AZ
• Developed an end-to-end data pipeline automating DNA-PAINT image analysis by integrating k-means clustering and custom tracking algorithms, slashing processing time from 4 hours to 10-30 minutes per image.
• Advanced research capabilities by delivering granular movement data and actionable metrics, transforming traditional nanotech workflows into ML-driven, high-impact research tools, integrating hardware, software and firmware
- Software Engineer & Aug 08/2024 – Present
Mesa Historical Museum (EPICS) & Tempe, AZ
• Built an immersive digital experience by developing an interactive website using React and Three.js, increasing visitor engagement by 20% and offering an engaging digital tour of museum collections.
• Led a 7-member team to implement scalable content management and ensure sub-second website response times, optimizing the digital visitor experience and increasing visitor engagement by 20%.

Software Engineer & Jan 01/2024 – Oct 10/2024

Software Developers Association (SoDA) & Tempe, AZ

- **Automated** operational workflows, reducing **test case upload time by 98%** using a *Selenium*-based scraper for **200+ files**, streamlining annual code challenge processes.
- **Optimized** membership systems by developing a *Flask-Next.js* application that boosted **operational efficiency by 50%** and enhanced **engagement for 600+** active members.

%-----LEADERSHIP EXPERIENCE-----

LEADERSHIP EXPERIENCE

Led teams to secure **4 hackathon wins** — including the **Most Innovative Solution Award** at **Devil's Invent** and the **Sustainable AZ Spark Challenge** (sponsored by **Honeywell, DAASH, and ASU**).

Progressed from Intern in Community Engagement to Associate Technical Director at **SoDA**, managing a team for workshop development, internal tool optimization, and outreach initiatives (e.g., hosting hackathons).

%-----PROJECTS-----

PROJECTS

Amano – Emotion-Based Song Recommendation System | *Flask, Spotify API, OpenAI API, AWS EC2 &*

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- **Enhanced user experience** with a real-time **ChatGPT LLM chatbot** that analyzes mood and sends data to the reinforcement model for dynamic song recommendations, functioning like a personal DJ.
- **Improvised Spotify's song recommendation system** by developing a backend using *Flask hosted on AWS EC2* that integrates with the *Spotify API* to provide personalized song suggestions using **Reinforcement Learning**.

Mine Alliance – Fullstack Sustainable Mining Website | *Next.js, Flask, SQLAlchemy, AWS, OpenAI GPT-4, TailwindCSS &*

- **Reduced environmental assessment response times by 40%** by leading the development of a **fullstack platform** that integrated **ChatGPT-4 API** for mining site impact assessments.
- Utilized *SQLAlchemy, Flask, AWS EC2*, and geospatial mapping with *Leaflet*, resulting in increased stakeholder engagement.

Market Anomaly Detection (MAD) | *Python, Streamlit, Scikit-learn, GEMINI, Jupyter Notebook &*

- **Enabled user-driven customization and improved performance** with features like **GEMINI-powered chatbot**, automated model tuning, and support for supervised and unsupervised learning pipelines.
- **Developed an anomaly detection system** to identify potential financial market crashes, utilizing *Streamlit* for an interactive user interface and *Scikit-learn* for model training and tuning.

%-----TECHNICAL SKILLS-----

TECHNICAL SKILLS

Languages : Python, C/C++, Java, JavaScript, TypeScript, C#, SQL, HTML, CSS, Flutter, LabVIEW, TestStand, ATEasy, Scala

Frameworks & Libraries : Flask, Django, React, TensorFlow, PyTorch, scikit-learn, OpenCV, three.js, pandas, numpy

Tools & Environments : Streamlit, Docker, AWS, Linux, Git, GitHub, Selenium, Google Colab, Jupyter Notebooks, Azure DevOps, Oscilloscopes, Logic Analyzers, Network Analyzers, Spectrum Analyzers, Azure, Google Cloud

Machine Learning & AI : Neural Networks, GEMINI API, Deep Learning, Reinforcement Learning, Unsupervised Learning, Configuration Management