Surya Salem

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EDUCATION

Purdue University   *Aug 2020 - May 2024*
- **Major**: B.S. in Computer Science, *focus on ML, AI, and SWE*   **GPA: 3.4**
- **Minor**: Management
- **Coursework**: Data Mining & Machine Learning, Intro to Analysis of Algorithms, Software Testing, Web Info Search & Management, Programming Languages, Systems Programming, Operating Systems, Data Structures & Algorithms
- **Skills**: Python, R, C, Java, HTML/CSS/Javascript, SQL, ARM Assembly, Scala, Haskell, Rust, Azure, AWS, Git, Github, Figma

WORK EXPERIENCE

LEIDOS - S*oftware Engineering Intern (Security)*   *May 2023 - Jul 2023*
- Strengthened security infrastructure by cross-referencing **1000+ IP** addresses between **Tenable Security Center & Splunk**, resulting in a comprehensive list of missing IPs and repositories for **over 100 unique environments**.
- Developed Python **scripts** to simplify IP list comparisons and application usage, increasing workflow efficiency.
- Monitored various sites for new major vulnerabilities daily to report findings and created a **Quick Reference Card (QRC)** about how to make morning reports for future use.

ALIGN TECHNOLOGY - *Data Engineering Intern*   *May 2022 - Aug 2022*
- Revamped backend system for ingesting **100+ TB** of data from **EventHub** to **Data Lakes** by dealing with missing data fields, **enhancing data accuracy by 25%**.
- Applied security policies utilizing **Azure Keyvault** for credential confidentiality across multiple projects.
- Consolidated multiple **Databricks** notebooks to process **Avro** & **JSON**-based topics from **Kafka**, allowing cross-functional teams to work on either platform and boosting workflow efficiency.
- Validated tested proof of concept in development and **QAS** environment with over **20+ dynamic test users**.

PROJECTS

Freelance Work | *Cryptocurrency, OpenAI API, Web Speech API, Discord API*   *May 2021 - Present*
- Developing an AI chatbot utilizing the OpenAI API & Web Speech API and integrating it into a Discord bot.
- Building PCs & crypto mining rigs from Intel, Nvidia, and AMD chips to suit client needs & provide customer support.

DripDrop | *React, Figma, GraphQL, AWS Amplify, Agile*   *Jan 2024 - May 2024*
- Created a full-stack social media fashion platform allowing users to friend, battle, vote, comment, and rank posted outfits.
- Engineered core functionality & development tools, collaborating with designers to iterate on interactions & UI/UX.

Entity-Relationship Diagram (ERD) Classification | *sklearn API, nltk API, PyTorch*   *Nov 2023*
- Classified images of ERD diagrams into groups based on content employing sklearn & nltk Python libraries.
- Utilized Object Detection (OD) & Object Character Recognition (OCR) to interpret text from diagram images, then applied and compared K-Means and agglomerative clustering algorithms on each dataset.

StemSpace | *React, Node.js, MongoDB, Spring Boot, Agile*   *Jan 2022 - May 2022*
- Delivered a simple social media platform allowing users to post, comment, follow topics, & directly message other users.
- Designed and implemented user interface functionality and authentication to improve user experience and security.

Microsoft | *Databricks, Reddit API, Instagram API, Agile*   *Aug 2021 - May 2022*
- Partnered with Microsoft to build social listening tools to analyze influencer activity in the Minecraft community.
- Analyzed **Reddit** data & devised a script to download **13,000+ Instagram posts** and post data to categorize art styles.
- Gauged community sentiment's impact on player engagement; presented influencer marketing & findings to stakeholders

John Deere | *OpenCV, Google Earth Engine API, Neural Networks, Agile*   *Aug 2020 - May 2021*
- Partnered with John Deere to build a boundary detection algorithm on golf courses through image processing.
- Applied edge detection filter methods & HSV masks to satellite images to better capture golf course boundaries.
- Achieved an **increased accuracy of 100%** over an average of **700 images** when tuned for a specific golf course image.

LEADERSHIP

ADVNT - *Performance Team Member*   *Jan 2023 - May 2024*
- Pre-professional dance organization that performed throughout the Midwest; Achieved 2nd place at Indy Open'24.

ASSOCIATION of SOUTH ASIANS at PURDUE (ASAP) - *Co-founder & Vice President Internal*   *Aug 2022 - May 2023*
- Fostered a community for South Asians to share their culture with other Asian organizations and students.
- Guided board members on how to best utilize the organization's resources for events & aided in mitigating conflicts.