# 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 (Vulnerability Management)*                        *May 2023 - Jul 2023*
- Enhanced 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 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 to my team and created a **Quick Reference Card (QRC)** on how to make morning reports for future use by the team.

**ALIGN TECHNOLOGY - *Data and Analytics Intern*                                              *May 2022 - Aug 2022*
- Increased accuracy of data analysis performed on the European dataset by designing an autonomous solution to provide default values for empty data fields while streaming from **EventHub** to **Data Lakes**.
- 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 multiple teams to work on either platform, increasing workflow efficiency.
- Validated tested proof of concept in the 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 & providing 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
- Involved in developing core functionality & dev tools, and worked 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.
- Used **Object Detection (OD)** & **Object Character Recognition (OCR)** to interpret text from diagram images, then applied a **K-Means** clustering algorithm to group them.

**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.
- Tasked with user interface functionality across the website along with user authentication.

**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 the average of **700 images** when tuned for a specific golf course image.

## EXTRACURRICULARS

**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*
- Provided a community for South Asians to share their culture with other Asian organizations and students
- Guided other members of the board on how to best utilize the organization's resources for events & mitigating conflicts.