SHREERAM GUDEMARANAHALLI SUBRAMANYA

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EXPERIENCE

White Hack LABS **Python Full Stack Developer** **November 2023 – Present**

- HackerGPT (https://hackergpt.co)
  - Built and integrated core agentic OSINT tools into hackergpt (*people search, phone validation/reverse lookup, leaks search, Nmap scanning, CVE lookup, etc*.), significantly enhancing platform capabilities.
  - Scaled the user base to **10,000+** global users, growing signups from **1,200 to 3,000+/**month. Boosted paid customer conversions by **15%** MoM.
  - Contributed to developing core features of the HackerGPT, such as implementing asynchronous task workflows using Celery and leveraging AutoGen for LLM agent orchestration.
  - Built an end-to-end automated Selenium testing kit (**HGPT-TK**) for the Chat app, integrating Google Sheets API for prompt/result logging, boosting testing speed by **60%.**
  - Utilized Allure reports to capture screenshots and generated comprehensive test reports, linking each test case to its corresponding prompt in the test sheet for complete traceability.
- **Breach Outreach CRM**
  - Built a CRM web app to identify breached companies and auto-enrich key decision maker details **(*~85% match rate*)**, enabling targeted outreach for penetration testing and incident response marketing.
  - Here's a more concise version:
  - Designed a pipeline to collect breach incident data from U.S. state AG and federal government websites.
  - Automated lead enrichment using **Selenium**, LinkedIn Sales Navigator, Apollo.io & SalesQL APIs, identifying **900+ key decision-makers** (*CTOs, CISOs, Partners*) across **400**+ breached companies (*Q1 Jan - Apr 2025*).
  - Used AI agents to generate personalized outreach messages tailored to each breach incident automatically.
  - Integrated HubSpot to enrich contacts, log interactions, and manage outreach workflows, by processing **60–130 leads/day.**
- Detecta AI **(Automated Penetration Testing Platform |** whitehacklabs.com/detecta**)**
  - Built a Django web app that enables users to configure and launch automated security tests by specifying target IPs, URLs, login credentials, and cloud access keys for comprehensive vulnerability scanning.
  - Assisted in scaling testing to support **60+ concurrent scans** for continuous monitoring and scheduled pentests.
  - Added support for authenticated scans, OWASP checklist testing, and real-time penetration test reporting using Retrieval-Augmented Generation (*RAG*).
  - Resolved production JIRA tickets with an average turnaround time of 8 to 10 hours.
  - Implemented dnspython for DNS validation, RabbitMQ, and Celery for asynchronous tasks, and OAuth2 for secure authentication.

Center for Unified Biometrics and Sensors Lab **Volunteer Research Assistant December** **February 2023 – November 2023**

- Gesture-Based Spatio-Temporal Representation Learning for Robust Fingerprint Presentation Attack Detection
  - Involved in building a spatio-temporal multimodal network to learn differences between live & fake fingerprints.
  - Collected and modeled a novel dataset, **GestSpoof,** comprising ***184*** *unique fingers*, ***552*** *spoofs* made with **three** distinct materials. The dataset comprises ***3,680*** *unique fingerprint videos* across ***five*** *motion* types for fingerprint spoof detection.
  - Co-authored and published the paper ***at the 18th IEEE FG Conference, 2024***.
  - Evaluated existing static-image detection approaches with residual network architectures like ResNet_50, ViT Base, and SwinV2.
- **Synthetic Fingerprint Dataset**:
  - Generated **2.4 million synthetic fingerprints** using directional maps and Gabor-like space-variant filters with varied noise levels using the Anguli synth-fingerprint generator.

Cognitron Technologies **Data Consultant** **March 2020 – July 2021**

• Delivered an Education CRM platform to boost student enrollment in public schools. Automated administrative workflows, saving 100+ staff hours weekly.

• Created datasets by processing the raw data in text/Flat files, comma-separated files, and Excel spreadsheets using the INFILE Statement with DSD, DLM, and MISSOVER options, and created SAS Macros and Graphs.

- Banyan Tree **(Data analysis pipeline)**
  - Led **20+ A/B tests** over 6 months on student engagement features like assignment tracking, discussion forums, and gamified surveys, driving a 10% increase in overall engagement.
  - Utilized APIs for data retrieval and developed interactive dashboards through visualization tools like Tableau and R Shiny to provide visibility into user behavior metrics such as conversion rates, click-through rates (**CTR**), and feedback scores.

EDUCATION

State University of New York at Buffalo, United States **August 2021 - February 2023**
Master of Professional Studies, Data Science and Applications

The National Institute of Engineering, Mysore **August 2016 - May 2020**
Bachelor of Engineering, Computer Science Engineering

PUBLICATIONS AND CERTIFICATIONS

- "*Gesture-Based Spatio-Temporal Representation*" published in the 18th **IEEE Automatic Face and Gesture Recognition.**
- "*Chest X-Ray Image Classification using ResNet50_v2*" published research article in the International Journal of Engineering Sciences and Computing (*IJESC vol. 10 Issue 6, June 2020*).
- **White Hack Labs Technical Blogs:**
  - **Cybersecurity in healthcare:** Authored blog on 2025 HIPAA rule, highlighting the security enhancements & NIST alignment
  - **HackerGPT Lite:** Published a release note article on HackerGPT Lite, showcasing the capabilities of the OSINT & Discovery tool
  - **FINRA penetration testing:** Wrote blog on focusing on penetration testing's role in financial risk management
  - **White Hat vs Black Hat:** Interviewed CISOs on evolving black hat tactics & the vital role of white hats in cybersecurity
- AZ-900: Microsoft Azure Cloud Fundamentals | Microsoft | January 2023

SKILLS

- **Programming:** Python, R, JAVA, SQL, JavaScript, Shell scripting, HTML & CSS
- **Developer Tools & Technologies**
  - **Version Control & DevOps:** Git, Docker, Kubernetes, GitHub Actions, Jenkins
  - **Cloud Technologies:** AWS (*Route53, CloudWatch, S3, EC2, Lambda, RDS, DynamoDB, CloudFormation, CloudFront*) & Azure
  - **Databases & ETL:** PostgreSQL, MongoDB, SQL, Talend
  - **Web Development:** Django, Selenium, Allure React, Postman, Nginx, Flask
  - **Machine Learning & AI:** XAI & OAI agent platforms, LangChain, Autogen, PyTorch, TensorFlow, Hugging Face, scikit-learn, pandas, OpenCV, Jupyter

ACADEMIC PROJECTS

Depression Detection from social media platforms: Python 3, Sci-kit learn, Plotly, Pandas, NumPy
Link: shreeramgs.com/project/project-1

- Led a team of 5, scraped data from various social media platforms such as Reddit and Twitter, using **snscrape** and **Reddit API.**
- Transformed unstructured data to structured format by extracting relevant information such as text, mentions, and timestamps.
- Pre-processed 15,000 suicide posts dataset by removing hashtags and links and evaluated lemmatization and stemming techniques.
- Performed **content analysis** (*topic modeling, sentiment analysis, topic distribution*) and visualized the data using Plotly.
- Devised a binary classifier model using feature selection techniques like XGBoost, SVM, and Random Forest to differentiate between suicidal and non-suicidal social media posts.

- Studied the runtimes and performance plots of the algorithms with different datasets.

US House Rent Predictor: Python 3, Kaggle, MySQL, Streamlit, Seaborn
Link: shreeramgs.com/project/project-4

- Standardized and preprocessed 75,000 US property listings, loaded into a SQL database for analysis. Employed regression models (*Linear, Decision Tree, Gradient Boosting)* to identify optimal models for the data.
- Developed a **Streamlit** web application to display predicted house rental prices based on input house attributes.

E-wallet Money Transaction System ExpressJS, React, PostgreSQL, HTML, CSS, NodeJS
Link: shreeramgs.com/project/project-2

- Built a responsive web application with dashboards from Materialize, ExpressJS, JavaScript, HTML5, and CSS, deployed on GCP.
- Developed restful APIs using JSON and established a seamless connection with the SQL database. Created respective indexes to optimize query performance and improved the efficiency of transaction history retrieval.

Pneumonia Detector by Chest X-Ray: Python 3, Keras, OpenCV
Link: shreeramgs.com/project/project-3

- Classified pneumonia through chest X-ray images using deep learning (*ResNet_50, VGG*) and evaluate the performance.
- Published paper in the International Journal of Engineering Science and Computing (**IJESC**).