

Bhargavi Poyekar

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EDUCATION

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| • University of Maryland - Baltimore County
M.S. - Computer Science; GPA: 3.88 | Maryland, United States
Aug 2022 - May 2024 |
| • Sardar Patel Institute of Technology, University of Mumbai
B.Tech - Computer Engineering; GPA: 3.81 | Maharashtra, India
Aug 2018 - May 2022 |

EXPERIENCE

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| • Cyber Security Summer Intern
University of Maryland Baltimore County | June 2023 - Present |
| <ul style="list-style-type: none">• Virtual Machines: Automated the launching, configuration, and management of virtual machines (VMs) using Ansible, resulting in a significant reduction in manual effort by approximately 50%.• Ansible : Developed and executed Ansible playbooks, utilizing command line operations and Python scripting, to streamline deployment processes and ensure consistent configurations across VMs.• Networks: Applied networking concepts to create a network of virtual machines, facilitating hands-on exercises on DOS attacks, injection attacks, and cryptography, deepening understanding of cybersecurity principles. | |
| • Student Research Assistant
University of Maryland Baltimore County (Part-time) | Sep 2022 - March 2023 |
| <ul style="list-style-type: none">• ECG HRV Features: Pioneered the extraction of time, frequency, and non-linear HRV features from ECG signal data using Python, contributing to the successful completion of the research.• Machine Learning Models: Improved model accuracy by 10% using optimized machine learning models and enhanced model robustness by experimenting with Gaussian noise in the data. | |
| • Laravel Developer Intern
Origin Cloud Tech | June 2020 - Aug 2020 |
| <ul style="list-style-type: none">• Learning Management System: Developed a scalable LMS Website using the Laravel Model-View-Controller Framework, resulting in an improved user experience and increased functionality, outperforming the project requirements.• Authentication and API's: Streamlined the system's security by implementing multifactor authentication, incorporating email and mobile OTP verification. Expertly integrated various APIs, including payment methods such as Paypal and Razorpay, message and location APIs, and Zoom API, improving the efficiency and effectiveness of the website.• UI and Database: Designed an aesthetically pleasing user interface for the application using HTML, CSS, Bootstrap, and Javascript, showcasing strong UI/UX design skills. Directed the database management process by creating a well-structured database design and performing CRUD queries with the use of join operations. | |
| • Website Developer Intern
Ask in City | May 2020 - June 2020 |
| <ul style="list-style-type: none">• Frontend and Backend: Utilized HTML and PHP to design and implement new features in an e-commerce project, resulting in an enhanced user experience and improved website functionality.• Agile Framework: Successfully implemented agile methodology, attending daily scrum meetings and working collaboratively with team members leading to an efficient and timely project completion. | |

PROJECTS

- **Token Manager (Socket Programming, Replication, Atomic Semantics, Fail Silent):** Developed a client-server application for token management. Implemented replication (1, N), supporting multiple reader nodes and a single writer node. Deployed a resilient **read-impose-write-all** protocol, ensuring accurate maintenance of token state information and fail-silent behavior for server nodes. **Tech: Go, gRPC, Google Protocol Buffer.**
- **Cyber Attacks and Prevention (ARP Poisoning, SSL/TLS, Diffie Hellman, RC4, DOS, Firewall):** Simulated MITM attacks, ensuring interception and access to sensitive information. Implemented secure communication channels for protected data transmission. Expertise in mitigating DOS attacks and safeguarding systems. **Tech: Netcat, TcpDump, Arpspoof, Apache, Linux, Openssl, UFW, Hping,**
- **Face Recognition Attendance System for Online Classes (Neural Network, Computer Vision):** Created a reliable attendance system with an accuracy of 93% for online classes that utilizes sophisticated face detection and recognition algorithms. Improved the model to function seamlessly even in adverse conditions such as low light intensity, maximum head tilt, and blurred images. **Tech: Python, HOG, VGG, Django, CNN, Scikit-learn, Pandas, Numpy, Matplotlib.**
- **EMOMUSIC: (Computer Vision, Web Development:** Developed an intuitive application that identifies a user's emotional state through facial expression analysis with 96% accuracy and recommends a customized playlist based on the analysis. Created an advanced music player to play the recommended songs tailored to the user's emotional state. **Tech: Python, Django, CNN, HTML, JavaScript, SQLite**

TECHNICAL SKILLS

- **Languages and Database:** Python, Java, C, PHP, Go, JavaScript, SQL, HTML, Dart, MySQL, SQLite, MongoDB
- **Frameworks:** Django, Django-Rest, Laravel, ExpressJS, AngularJs, Flutter, Android Studio, Scikit, TensorFlow
- **Others:** GIT, Linux, Ansible, Tableau, Matplotlib, Jupyter, Pandas, Numpy, Bootstrap, JQuery, API, JWT