SAI LAYA MALLINENI

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Objective

Eager computer science master's student with proficiency in Java and Python, coupled with practical experience in Unity and AI project development as a research assistant. Actively pursuing developer roles that capitalize on my technical expertise and academic background. With prior experience at DELL Technologies, poised to make significant contributions to innovative software development initiatives, driving tangible impact in the industry.

Education

- **Purdue University** — Indiana
  Masters in Computer Science; GPA: 3.72/4.00 — *May 2024*
- **BVRIT HYDERABAD College of Engineering for Women** — India
  Bachelor of Information Technology; GPA: 8.13/10.00 - Top 5 in class of 60 — *Aug 2017 - July 2021*

Skills Summary

- **Programming and Scripting Languages**: Java, Python, JavaScript, C, C++, C#, PHP, HTML, CSS, R, Matlab, NodeJS
- **Technologies and Frameworks**: ReactJS, Angular JS, SpringBoot, Flask, JUnit, Numpy, Pandas, Matplotlib, YOLO
- **Database and Development Tools**: MySQL, MongoDB, Android Studio, Unity 3D, Pycharm, Visual Studio, MS Office, Git
- **Additional Skills**: Agile Methodology, Object-Oriented Programming, Test-Driven Development (TDD), Responsive Web Design, Virtual Reality Development, UX/UI Design Principles, JS Unit Testing

Experience

- **Center for Innovation through Visualisation and Simulation** — PNW, USA
  Research Assistant — *Jan 2023 - Current*
  - **Hazard Recognition Simulator Builder**: Developed Safety Training Software using Unity to enable instructors to create immersive hazard recognition training reducing industry hazards by 30 to 50% and by uploading 360-degree videos and creating interactive elements. Enhanced safety awareness for trainees, revolutionizing traditional training methodologies.
  - **Hazard Recognition using Artificial Intelligence**: Developed an advanced object detection model utilizing the YOLO algorithm with an accuracy of 87%, specifically trained to analyze real-time video streams. Designed to identify humans and restricted areas swiftly, the model evaluates potential danger scenarios by detecting safety equipment like helmets and incorporates depth analysis between bounding boxes, enhancing safety measures in various environments.
- **DELL TECHNOLOGIES** — Hyderabad, India
  Full Stack Java Developer — *Jul 2021 - Jul 2022*
  - **Inventory and Discrepancy Management**: worked on migration of legacy ERP GLOVIA to PRISM, a customizable order and inventory management solution, optimizing real-time data flows and operational reporting across modules. This reduced data retrievel time by 40%. Developed API integrations and implemented data retention strategies, ensuring seamless communication and compliance while achieving comprehensive code coverage for enhanced platform stability and performance.
- **VirtuBate** — Hyderabad, India
  Internship- Backend Developer — *Jul 2020 - Oct 2020*
  - **Innovate Incubate Incorporate**: Developed Innovate Incubate Incorporate, a MERN Stack website facilitating pre-incubation processes for tech-focused projects, enabling seamless frontend-backend communication via API calls. Collaborated cross-functionally to implement interactive features, including signal transmission from frontend to backend, optimizing platform performance and scalability.

Academic Projects

- **StandUp for Women Safety**: Developed an Android application focused on women's safety, integrating security measures such as SendGrid SMS notifications to alert family members in case of emergencies. Incorporated features including real-time location tracking using LocationListener to notify police stations and cloud-based storage for preserving evidence using media stream recorder API.
- **SVES Placement Portal**: Led the development of the SVES Placement Portal, a comprehensive platform automating the training and placement process for students. Utilized MERN stack and D3 for data visualization, enabling automated event notifications via email and SMS, enhancing student engagement, and providing administrators with insightful placement records tracking capabilities. Easing the work for placement officer by 80% with a switch from paper ambiguity to online.
- **GroCart, Next basket prediction**: Implemented a Machine Learning project to predict the contents of the next grocery cart based on historical data. Achieved 97% accuracy using feature engineering techniques and XG-Boost algorithm, with a Flask website interface for user-friendly predictions.
- **Embedded Merge and Split**: Designed an intuitive data analysis tool, Embedded Merge and Split, enabling users to visually represent extensive datasets through various graphs. Improved data analysis efficiency by 70%. Facilitated easy pattern recognition and correlation analysis across different data ranges through intuitive actions like drag and drop.