# SAI LAYA MALLINENI

Linkedin: https://www.linkedin.com/in/sailayamallineni/

Email : smallin@pnw.edu
Mobile: +1 (425) 543-5005

## Objective

Proactive Computer Science master's graduate with expertise in Java, Python, Unity, and AI development. Seeking developer roles to leverage technical skills and contribute to innovative software solutions. Previous experience at DELL Technologies ensures readiness to drive impactful software development initiatives.

## Education

- **Purdue University** — Indiana
  *Masters in Computer Science; GPA: 3.74/4.00* — *May 2024*
- **BVRIT HYDERABAD College of Engineering for Women** — India
  *Bachelor of Information Technology; GPA: 8.13/10.00* — *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 Associate* — *June 2024 - Current*
  - **Integrated Virtual Blast Furnace (IVBF) Interface**: Designed and implemented a data visualization interface for an advanced blast furnace simulation tool, enabling real-time monitoring and optimization of furnace operations. Improved decision-making through dynamic dashboards and interactive controls for simulation scenarios.
- **Center for Innovation through Visualisation and Simulation** — PNW, USA
  *Research Assistant* — *Jan 2023 - May 2024*
  - **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 customize order and inventory management solution, optimizing real-time data flows and operational reporting across modules. This reduced data retrieval time by 40%. Developed API integration's and implemented data retention strategies, ensuring seamless communication and compliance while achieving comprehensive code coverage for enhanced platform stability and performance.

## 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.