Abhinav Yedla

Atlanta, GA | 470-701-6948 | abhi.yedla2004@gmail.com | linkedin.com/in/abhinav-y

EDUCATION

University of Georgia — Athens, GA
Masters of Science in Computer Science (Double Dawgs Program) — *Expected May 2027*
Bachelor of Science in Computer Science — *Expected May 2026*
Cumulative GPA: **3.67** | Honors: Presidential Scholar (Summer 2025)
Relevant Coursework: Algorithms, Software Engineering, Operating Systems, Web Programming, Data Science, Statistics

WORK EXPERIENCE

VIPR AI/ML and Agricultural Robotics — Athens, GA
Undergraduate Research Assistant — *Jan 2026 – Present*
- Developed automated **backend services** to ingest and process **large-scale datasets**, achieving high-fidelity validation of thousands of LiDAR frames using **Python**.
- Implemented **perception logic** for enhanced agricultural robot navigation, validating against ground-truth data through effective **cross-functional team reviews** to solve complex problems.
- Documented **workflow processes** and analysis methods using **standardized logging protocols**, ensuring reproducibility and clarity for the team while enhancing **software quality**.

Barberitos (On Campus) — Athens, GA
Student Worker — *Mar 2025 – May 2025*
- Coordinated task delegation within a team, maintaining high service accuracy for over 100 patrons daily using **fast-paced communication workflows** and **problem-solving skills**.
- Managed over **$1,000 daily transactions** with precise point-of-sale operations, ensuring **financial reliability** and maintaining a zero-discrepancy record through careful execution.

PROJECTS

Data Processing and Predictive Analytics System | *Python, Docker, CI/CD*
- Automated **ETL pipelines** for large-scale datasets, significantly reducing manual data preprocessing time using **Python** and **Docker for CI/CD**.
- Evaluated diverse ML/NLP feature sets and selected effective predictors using **k-fold cross-validation**, achieving optimized **predictive model accuracy** through **software engineering techniques**.
- Implemented **KPI checks** and **data validation scripts** to automate anomaly detection, ensuring high data quality and issue identification with strong **problem-solving**.

Movie Review Website | *React, RESTful APIs, Git*
- Developed an **interactive full-stack web application** using **React and RESTful APIs**, streamlining dynamic **UI updates** and rendering user-submitted content for enhanced engagement.
- Implemented a **modular backend design** and version control using **Git**, enhancing web application maintainability and accelerating deployment speed through **software engineering techniques**.

Survey Form Web Application | *React, UI/UX, Web Standards*
- Simplified **data submission flow** and layout using **React components**, enhancing the **user experience** for an interactive web application designed with frontend focus.
- Incorporated iterative **user feedback** into the **frontend design architecture**, significantly improving accessibility and interface responsiveness for a modern **web application** using HTML/CSS.

File Comparison Tool | *C, C++, Memory Optimization*
- Engineered a high-performance byte-level utility using **C++**, decreasing comparative analysis runtime for **large files** (exceeding 1GB) with effective **performance optimization**.
- Optimized memory allocation and execution flow using **advanced data structures**, increasing system reliability during repeated analytical runs through effective **problem-solving**.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, C#, SQL, JavaScript, HTML/CSS, R
Frameworks/Libraries: React, Node.js, Next.js, Pandas, NumPy, Matplotlib
Tools & Platforms: Git (GitHub, GitLab), Docker, AWS, Linux/Unix, VS Code, npm, PyCharm, IntelliJ
Data & Perception: LiDAR (Velodyne VLP-16), Point Cloud Processing, PCAP File Processing, Spatial Analysis, Geometric Modeling
Concepts: Object-Oriented Programming, Agile, Data Analytics, Full-Stack Development, Backend & Frontend Engineering