Abhinav Yedla

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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 **LiDAR data** for high-fidelity validation, enhancing **data scalability** using **Python**.
- Implemented perception logic for **autonomous robot navigation**, validating against **ground-truth data** with cross-functional reviews to improve system reliability.
- Documented workflow processes and analysis methods using **standardized logging protocols**, ensuring **reproducibility and clarity** for team-wide platform stability.

Barberitos (On Campus) — Athens, GA
Student Worker — *Mar 2025 – May 2025*

- Maintained **high service accuracy for high-volume daily foot traffic (100+ patrons)** through the coordination of task delegation with a shift team using **fast-paced communication workflows**.
- Ensured **zero discrepancy financial reliability** through the management of **$1,000+ daily transactions** using **precise point-of-sale operations**.

Projects

Data Processing and Predictive Analytics System | *Python, Docker, CI/CD*

- Automated ETL pipelines using **Python and Docker CI/CD**, reducing manual processing time for **large-scale datasets** and improving **system scalability**.
- Optimized predictive model accuracy by **validating ML/NLP feature sets** using statistical methods, improving **performance engineering** for critical predictions.
- Implemented **data validation scripts** for KPI checks, automating **anomaly detection** and improving **data quality** within the processing system.

Movie Review Website | *React, RESTful APIs, Git*

- Developed a **full-stack web application** using **React and RESTful APIs**, streamlining **dynamic UI updates** and user review rendering.
- Implemented a **modular backend design** with **Git version control**, enhancing **application maintainability** and improving deployment speed for stability.

Survey Form Web Application | *React, UI/UX, Web Standards*

- Simplified the layout and field grouping using **React components**, streamlining the **data submission flow** and improving user experience.
- Incorporated iterative user feedback into **frontend design architecture**, improving **overall accessibility** and interface responsiveness for broader adoption.

File Comparison Tool | *C, C++, Memory Optimization*

- Engineered a high-performance byte-level utility using **C/C++**, decreasing comparative analysis runtime for **large files** and enhancing **system scalability**.
- Optimized memory allocation and execution flow using **advanced data structures**, increasing **system reliability** during repeated analytical runs.

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