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 **Python** backend services to efficiently ingest and process **LiDAR frames**, enabling high-fidelity data **validation**.
- Implemented tree trunk perception logic, enhancing **robot navigation** efficiency through **cross-functional team reviews**.
- Documented workflow processes and analysis methods, ensuring team **reproducibility** and clarity using **standardized logging protocols**.

Barberitos (On Campus)   Athens, GA
Student Worker   *Mar 2025 – May 2025*
- Coordinated task delegation with a shift team, maintaining **service accuracy** for 100+ patrons through **fast-paced communication**.
- Managed exceeding **$1,000 daily transactions**, ensuring **financial reliability** through precise **point-of-sale operations**.

PROJECTS

Data Processing and Predictive Analytics System | *Python, Docker, CI/CD*
- Automated **ETL pipelines** with **Python** and **Docker (CI/CD)**, reducing manual preprocessing time for large datasets.
- Evaluated multiple ML/NLP feature sets, achieving **optimized model accuracy** through **k-fold cross-validation** and effective predictor selection.
- Implemented KPI checks using **data validation scripts**, automating **anomaly detection** and data quality issue identification.

Movie Review Website | *React, RESTful APIs, Git*
- Developed a full-stack **web application** using **React and RESTful APIs**, streamlining dynamic UI updates and review rendering.
- Implemented a modular backend design and **Git** version control, enhancing **application maintainability** and deployment speed.

Survey Form Web Application | *React, UI/UX, Web Standards*
- Streamlined data submission flow using **React components**, simplifying layout and field grouping to enhance **user experience**.
- Incorporated iterative **user feedback** into frontend design, improving **accessibility** and interface responsiveness for users.

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