Bhinu Santosh Puvvala

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EDUCATION

University of Wisconsin - Madison

Bachelor of Science in Computer Science & Data Science, Minor in Economic Analytics

EXPERIENCE

Software Engineering Intern

May 2025 - Present

Expected: May 2027

GPA: 3.7/4.0 (Dean's List)

A Jam Records

New York, NY

- Developed and deployed backend APIs using Python and Azure Functions, enabling seamless service integration and reducing development time at an early-stage music tech startup.
- Designed secure data pipelines using Azure Blob Storage and Azure SQL, ensuring encrypted data flow between backend systems and AI models, enhancing data security and integrity
- Collaborated with AI and front-end teams to streamline architecture and reduce latency using Azure API Management and logging tools, improving system performance and user experience

Data Analyst Intern

June 2024 – August 2024

Diyar United Company

Kuwait City, Kuwait

- Identified gaps in performance visibility and increased monthly revenue by 5% by developing interactive Power BI dashboards to track key KPIs including churn, acquisition, and revenue trends.
- Designed a star schema for enterprise client data, enabling segmentation by industry and size, which facilitated targeted campaigns and contributed to a measurable 12% increase in client acquisition.
- Eliminated manual inefficiencies by automating 4 recurring data processing workflows, such as daily sales ETL and reporting scripts, using Python and SQL—saving 15 hours/week and boosting team capacity.

RESEARCH

Undergraduate Researcher

Jan 2025 – Present

GLUE Lab, University of Wisconsin - Madison

Madison, WI

- Identified high-risk deforestation zones in the Amazon and Cerrado regions by mapping land-use transitions using QGIS and ArcGIS, improving geospatial analysis accuracy for regulatory partners.
- Tracked deforestation trends over 20+ years in Brazil by analyzing satellite imagery and supply chain records using PyTorch, uncovering direct links to cattle and soy expansion.
- Reduced model error in livestock classification tasks by 20% by developing and tuning object detection models in TensorFlow, replacing YOLOv3-based pipelines with precision-optimized alternatives.
- Led a cross-disciplinary initiative to evaluate corporate zero-deforestation claims, applying supervised learning models to quantify impact across regions with strict ESG compliance.

PROJECTS

 $\textbf{Gesture} \mid \textit{Electron.js}, \textit{MediaPipe}, \textit{TensorFlow}, \textit{PyAutoGUI}$

- Built a cross-platform application to enable gesture-based system control (e.g., volume, workspace switching) for accessibility, integrating MediaPipe with custom-trained CNNs and FFNNs for 95% gesture accuracy.
- Designed an intuitive GUI in Electron.js and optimized real-time responsiveness across Windows, macOS, and Linux, reducing input latency and improving UX.

HackSherpa | Next.js, React, Supabase, Flask, Python, TypeScript

- Developed a full-stack web app to assist hackathon teams from ideation to presentation, scraping and analyzing 1,000+ DevPost projects to suggest relevant tech stacks.
- Automated README and pitch generation using Python scripts, increasing team documentation speed and reducing planning overhead by 40%.

LEADERSHIP

Event Manager

August 2024 - Present

 $Wisconsin\ Union,\ University\ of\ Wisconsin\ -\ Madison$

Madison, WI

- Led logistics for 5,800+ campus events with a 95% client satisfaction rate, managing operations, AV setups, and policy enforcement across all Union locations.
- Supervised 30+ student staff and collaborated with university officials to create safe, efficient environments for over 10,000 attendees, cutting event setup time by 35%.

TECHNICAL SKILLS

 $\textbf{Languages:} \ \ Python, \ Java, \ SQL \ (PostgreSQL, \ MySQL), \ JavaScript, \ HTML/CSS, \ TypeScript, \ Bash, \ Ranguages \ Python, \ SQL \ (PostgreSQL, \ MySQL), \ SQL \ (PostgreSQ$

Frameworks & Tools: React, Next.js, Flask, Electron.js, TensorFlow, MediaPipe, Git, Docker, Postman

Libraries: PyTorch, pandas, NumPy, scikit-learn, Matplotlib, seaborn

Platforms: Power BI, Tableau, QGIS, ArcGIS, Supabase, VS Code, Jupyter

Cloud Platforms & DevOps: Azure Functions, Azure Blob Storage, Azure SQL, Azure API Management, Azure DevOps