Walstan Baptista

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Software Engineer passionate about delivering innovative, efficient, scalable, and reliable software solutions and expertise in various languages, frameworks, and cloud technologies. Eager to advance the company's projects and develop new and innovative solutions.

SKILLS

Languages / Scripting: Python, TypeScript, JavaScript, C/ C++/ C#, MATLAB, Java, HTML, CSS/Sass, Bash.
Libraries / Frameworks: FastAPI, Django, Selenium, Numpy, Pandas, PyTorch, OpenCV, Vue, React, Node.js, Frappe.
Database / Tools: MongoDB, MySQL, PostgreSQL, Cassandra, Celery, Redis, GCP, AWS, Kubernetes, Docker, Terraform, Linux.
Continuous Integration / Deployment: Jenkins, Travis CI, GitHub Actions.
Certifications: Google Cloud Platform 6 Course Professional Certificate: Cloud Engineering with Google Cloud.

WORK EXPERIENCE

Arizona State University (research position funded by Lockheed Martin) *Tempe, AZ*
Graduate Research Assistant **January 2023 – Present**

- Developed and tested software tools like Psy-TaLiRo in Python, enabling formal verification and robustness analysis of hybrid systems. Focused on blackbox models for cyber-physical systems. (ACM Demo Publication link)
- Set up a scalable Google Drive automation tool for Arch comp, streamlining the submission evaluations process.

Solar Canoes Against Deforestation (funded by National Geographic) *Phoenix, AZ*
Application Developer **May 2022 – December 2022**

- Redesigned the SCAD web app with a team of 4 using Django and React, enabling users to request rides on mobile devices.
- Revamped the pricing and payment system with Stripe and OAuth2 authentication for seamless and secure transactions for riders and drivers while working closely with stakeholders and project managers.
- Introduced Infrastructure as Code (IaC) principles using Terraform for managing cloud resources and deployments.
- Implemented real-time location tracking using Flask-SocketIO and Google Maps API, reducing average waiting time by 25%.

Resilient Tech (subsidiary of Frappe Framework) *Vadodara, IN*
Full Stack Software Engineer **May 2020 – August 2021**

- Raised 60+ innovative GitHub open-source PRs to Frappe / ERPNext, fixing over 80 potential issues.
- Enhanced data accuracy and process effectiveness by integrating ERPNext with 35+ third-party systems, including payment gateways, CRMs, accounting software, and marketing automation tools, utilizing REST APIs and webhooks.
- Led a team of 3 to transfer three apps from on-premise infrastructure to AWS/GCP, increasing application scalability and flexibility and a 10% decrease in downtime.
- Communicated with clients and stakeholders to understand requirements and expectations and to provide status updates.

Software Engineer Intern **January 2020 – May 2020**

- Collaborated with cross-functional teams to conceptualize, engineer, and deploy over 15 customized applications and modules leveraging Python, Frappe, Django, and JavaScript; authored comprehensive unit tests to ensure robust functionality.
- Built and modified 25+ forms, reports, and dashboards with Frappe and integrated them with front-end technologies, such as JavaScript and Frappe UI, to automate processes, resulting in a 30% improvement in data accessibility and decision-making.

PROJECTS

Personal Finance Tracker and Analyzer

- Designed a web application where users can input their financial transactions. Implemented data analysis features like expense trends, budget recommendations, and savings goals with a user-friendly interface and the ability to handle financial data.

Real-time Predictive Analytics Dashboard

- Built a Sports Predictive Analytics Website using Flask and XG Boost, with data visualization tools to help users gain insights into team performance, enabling users to accurately predict sports event outcomes.

React Webchat App

- Developed a real-time chat application using React and Python FastAPI, integrating Socket.IO for seamless user communication, deployed the application using Docker and Kubernetes, and implemented a real-time reaction to message with an emoji feature.

Shravas Drone Delivery System

- Collaborated on designing autonomous drone flight architecture with facial tracking, object detection, and QR-code scanning with OpenCV in Python and ROS Kinetic, resulting in fleet automation of 12 drones with an interactive web GUI.

EDUCATION

Arizona State University, Master of Science – Artificial Intelligence, Computer Science *Tempe, AZ*
School of Computing & Augmented Intelligence (SCAI) (GPA 3.8 / 4.0)

Gujarat Technological University, Bachelor of Engineering in Computer Science & Engineering *Vadodara, IN*
Institute of Technology BITS Edu Campus (CGPA 8.4 / 10.0)

HONORS & ACTIVITIES

- Awarded Student Startup and Innovation Policy (SSIP) Grant of ₹111,250 INR from the Government of Gujarat for Shravas.
- Coordinated and volunteered for multiple international student CIS events at ASU.
- Won 1st place in the event Sherlock at SVIT National Level Tech Symposium.
- Managed and coordinated college-level 'Aptitude Tests' for 4 years.