Walstan Baptista

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Software Engineer with extensive experience delivering efficient, scalable & reliable software solutions and expertise in Cloud Technologies. Seeking a full-time opportunity to join a team of talented, like-minded professionals and driving projects forward.

SKILLS

Languages / Scripting: Python, TypeScript, JavaScript, C/ C++/ C#, MATLAB, Java, HTML, CSS/Sass, Bash.
Libraries / Frameworks: FastAPI, Django, Selenium, Numpy, Pandas, PyTorch, OpenCV, CUDA, ROS, 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**

- Developing and testing software tools like Psy-TaLiRo in python for formal verification and robustness analysis of hybrid systems, with a focus on blackbox models for cyber-physical systems, as part of a research team. ACM Demo Publication link.
- Setup 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 both 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 a 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, resulting in an increase in 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 it 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

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.

Automated Job Application Software

- Developed an automated job application system hosted on local system utilizing Selenium and Docker, resulting in a significant reduction in time and effort required for job application submissions, written in Python.

Sports Predictive Analytics Model

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

Autonomous Driving in CARLA

- Implemented a Deep Q learning model for autonomous driving with a team of 4, within the CARLA simulator in Python and demonstrated results through real-time simulations and reward policy performance evaluations.

EDUCATION

Arizona State University, Master of Science – Artificial Intelligence, CSE **May 2023**
School of Computing & Augmented Intelligence (SCAI) (GPA 3.8 / 4.0) *Tempe, AZ*

Gujarat Technological University, Bachelor of Engineering in Computer Science & Engineering **September 2020**
Institute of Technology BITS Edu Campus (CGPA 8.4 / 10.0) *Vadodara, IN*

HONORS & ACTIVITIES

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