Abishekraj Vinayagar Gnanasambandam

Coventry, UK | +44 7767 930675 | vgsabishekraj@gmail.com | linkedin.com/in/abishekrajvg | github.com/abishekrajvg

Versatile SWE with 3+ years of experience in Backend development and Release management, highly skilled in Python, Java, Shell scripting, and Azure, with a Master's in Computer Science from Warwick, focused on CompSec, Data Analytics, ML and Federated Learning.

TECHNICAL SKILLS

Python, Java, C++, Shell Scripting, Git, SQL, PostgreSQL, Apache Ignite, RESTful APIs, Microsoft Azure, Docker, Kubernetes, Azure DevOps, Release Management, Agile-Scrum, Incident-Response, Pandas, NumPy, PyTorch, Federated Learning, Flower

PROFESSIONAL EXPERIENCE

University of Warwick, Tissue Image Analytics (TIA) Centre, United Kingdom | Software Engineer | September 2023 – Present
- Contributing to the development of the TIAToolbox, a PyTorch-based computational pathology framework, part of the BigPicture project funded by the EU Innovative Medicines Initiative (IMI) at Warwick's Department of Computer Science
- Collaborating on the development of a web-based Cytomine platform for the TIAToolbox

Infosys, Chennai, India | Senior System Engineer | Oct 2021 - Aug 2022
- Orchestrated sprint-wise software releases as a Release Manager to a team of ten developers, undertaking:
  - Git Codebase management, including reviewing and approving merges from multiple feature and development branches into master and release branches across six repositories
  - Regression testing of inter-dependent modules, versioning & packaging into docker images
  - Documenting release updates in changelogs and Wiki pages, deployment instructions for QA, Staging, and Production environments
  - Managing bug fixes, hotfixes, incremental updates, and final versioning
- Collaboratively Investigated two Proofs-Of-Concepts for usage-based resource allocation and presented results over stakeholder meetings persuading a Production implementation. This helped reduce the team's overall cost to Azure Cloud by 50%
  - Designed a seamless weekend shutdown Cron tool with auto-deployment, data backup/restore to scale dormant nodepools & pods
  - Implemented traffic-based autoscaling through customized scripts, Kubernetes operators, and Azure's horizontal pod auto-scaling based on CPU utilization and volume of live data ingested, dynamically scaling down up to just 30% of nodes, reducing by 50%
- Recognized for my meticulous documentation on Jira issues, independent experiments and POC efforts
- Mentored five new developers & testers on the API development flow, project-specific cloud fundamentals, Git code management, and containerized application build & deployment
- Provided round-the-clock support towards Production deployments and miscellaneous troubleshooting

Infosys, Chennai, India | System Engineer | Aug 2019 - Sep 2021
- Served as a critical developer in the cloud migration of a monolithic AT&T Big Data Analytics application into containerized microservices onto Azure
- Built RESTful APIs using Java, integrated with customized distributed Apache Ignite & PostgreSQL databases
- Overhauled scripting of JSON/YAML config-driven Python & Bash tools to build, share Docker containers and deploy into Kubernetes pods
- Defined holistic claim on the Azure infrastructure by building, copying, deploying, and scaling containerized apps using Azure Container Registry and Azure Kubernetes Service through shell scripts on Azure VMs and automated via Azure DevOps Pipeline
- Established a solid practice of software development through Agile Scrum methodology

Infosys, Mysore, India | Intern | Dec 2018 - May 2019
- Accentuated solid grasp of industry-oriented programming through rigorous training and evaluation
- Developed an e-commerce web app employing Java Spring suite and Angular JS
- Furthermore, selectively upskilled in the foundations of SAP Hybris

Oil and Natural Gas Corporation, Chennai, India | Intern | Jun 2016
- Explored legacy systems and the application of computers in the field of Geo-Sciences
- Developed data retrieval and processing tools in Assembly and C

EDUCATION

Master of Science in Computer Science (Expected Graduation: September 2023)
University of Warwick, Coventry, United Kingdom
- Modules include: Data Analytics, Data Mining, NLP, Adv Computer Sec., Game theory, and Agent-based systems
- Dissertation Project: Mitigating Device and Behavioral Heterogeneity in Federated Learning
- Course Rep in the Warwick Student Staff Liaison Committee (SSLC) representing the MSCS cohort

Bachelor of Engineering in Computer Science (June 2015 - April 2019)
Anna University, Chennai, India
- Modules include: Data Structures, DBMS, Comp Arch, Networks, DAA, Distributed Systems, Comp. Forensics, AI, Comp Sec.
- Dissertation Project: IDROID - Intelligent DNA Phenotyping Global Recognition and Oblivious Image-Processing
- Partnered in experimental projects and presentations as an Entrepreneurship cell committee member
- Spearheaded student-led summer boot camps for industry-oriented training for non-tech students in Programming, SQL & DSA