

AKASHPRABU A C

[in LinkedIn](#) | [+91-8903890538](#) | [akashprabu.com](#) | [akashprabu.ac@gmail.com](#) | [GitHub](#)

Skills

- C | C++ | GoLang | Python | HTML | CSS | Javascript | Docker | Kubernetes | Terraform | MySQL | PostgreSQL | MongoDB | Git | Github | Postman
- AWS | Azure | Openshift | Redis | CI/CD Tools - Azure DevOps, AgroCD | Nats | Jetstream | Grafana | Prometheus | Linux | DBaver | Minio | Trino
- Microservices | Fullstack | Cloud Computing | Distributed Systems | DevOps Methodology | English, Tamil – *All professional proficiency or above*

Experience

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|---|---|-----------------------------|--------------------------|
| Software Development Engineer Grad | <u>CSG Systems International</u> | <i>Bengaluru, KA, India</i> | 07/2022 - Current |
| <ul style="list-style-type: none">• Working with the Diameter Team involving Research and Development of Ascendon Rating and Charging (ARC) a Next Generation Telecom product, leveraging the latest edge-cutting technologies., Core Backend Development of Cloud-based Digital BSS (ARC) solutions with DevOps methodology.• Designed and rebuilt the 4G services to allow the high-speed wireless communication standard VoLTE calls to authenticate, authorise and charge them.• Engineered a solution to utilize the existing code of 4G(Diameter/PCRF) and 5G(nCHF/nCHF-PCF) microservices from AWS cloud-dependent service into a StandAlone service which can be deployed on any cloud platform and on-premises platform using Kubernetes and OpenShift.• Collaborated with team to re-architect the entire 4G and 5G systems to reduce load and created a new microservice (DMS) using Golang, Docker and Terraform to support and handle the CDRs (Call Detailed Records) from 4G and 5G systems for offline processing and user report bill generation.• Optimized and improved the caching system for 5G microservices using Redis which reduced the product cost by 11% and built CI/CD pipelines for deploying the 4G/5G microservices in an OpenShift cluster of an on-premise platform using Azure DevOps release pipelines.• Automated repetitive operational tasks, and DevOps monitoring activity and improved the metrics which saved about 12 manual hours per week.• Developed new restful APIs using Golang and added functionality for rating the charges applied to the customer.• Continuous Integration/Deployment Pipeline Integration, documentation, pull requests, code reviews, DevOps monitoring and unit/integration/e2e testing. | | | |
| Software Development Engineer Intern | <u>CSG Systems International</u> | <i>Bengaluru, KA, India</i> | 12/2021 - 06/2022 |
| <ul style="list-style-type: none">• Performed data migration from a legacy data source, by developing a new Go-based transformation tool which reduced the task execution time by 60%• Implemented a highly efficient Bulk Load functionality using Golang, PostgreSQL, Kubernetes CronJob for on-premise and Lambda for the AWS platform. To optimize the uploading of subscribers' data in chunks to the Database, thus reducing the CPU and Memory of the Pods and ECS tasks.• Implemented Seagull component test cases for generating traffic (3GPP protocol) to test the functionality of the Diameter microservice.• Enhanced the internal tools which resulted in improved performance and reliability. Managed web servers hosted in EC2 instances in AWS. | | | |
| Software Engineer Intern | <u>Onfluence</u> | <i>Emden, NI, Germany</i> | 08/2020 - 11/2020 |
| <ul style="list-style-type: none">• Implemented designs, and backend functionalities and created the website for ReflectSecurity a Cyber Security company, Headquartered in Chennai, India using WordPress and WordPress Designs. Part of a Web Development Team in Emden, NI, Germany. | | | |

Education

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|---|---|------------------------------|--------------------------|
| Bachelor of Engineering | <u>Bannari Amman Institute of Technology</u> | <i>Coimbatore, TN, India</i> | 08/2018 - 05/2022 |
| <ul style="list-style-type: none">• Major in Computer Science and Engineering CGPA: 9.65/10 2nd/240 students.• Relevant Courses: Data Structures, Design and Analysis of Algorithms, Software Engineering, Compiler Design, Operating Systems, Software Testing.• Independent Courses: CISCO CCNAv7, BeADevOpsProf[iNeuron], Cloud Computing[UIUC]. | | | |

Projects, Patents and Journals

- **Soldier Strap:** Developed a hand-worn device that checks for the soldier's vital signs like heartbeat rate, blood pressure and body temperature, and geographical location in regular intervals. And transmits the data to the base camp without internet network connectivity for a range of 12 miles. And establishes a mesh network with other devices/nodes between the soldier and base camp to expand the range and broadcast SOS messages within the nodes and base camp. Modified this project for women's safety in non-network areas. Filed and published a patent. Application No: **202141025203** (2021)
- **WashBot:** Developed a fully automated smart hand wash monitoring device, which monitors the hand washing gestures made by the users while washing their hands and records the number of hand washing steps done and stores it in the database under the user's label. (2020)
- Published a Journal on **Enhancing Heart Disease Prediction Through KBEST-PCA Fusion Feature Selection and Ensemble Modeling With Gaussian Naive Bayes Boosting** under the guidance of Prof. Dr Dhivya P.

Achievements

- Achieved an Olympiad Rank of **190th** in International, **5th** in State and **1st** in Class at Level 2 of **International Informatics Olympiad** 2017-18.
- Won 1st prize in Project Contest for the project **Soldier Strap** at the Imagine Cup event conducted by National Engineering College, Trichy (09/2020)
- Won 1st place in Database and MySQL contest at the Ready, Set, Database event conducted by Sairam Engineering College, Chennai (10/2021)

Leadership and Extracurriculars

- Collaborated with youth-driven NGO, **Way For Life**, in creating solar lamps which replace traditional kerosene lamps. With this great opportunity we helped the local communities in gaining access to clean, renewable energy and raise their quality of life in a sustainable fashion (2023)
- Active member of the **Great Minds Club**: To inspire and cultivate success from a community of talents from different backgrounds through varied experiences. Served as a **Student Mentor**, organising orientation events and mentoring the institute freshmen (2019-2022)
- Taught school children from marginalized communities at **Illuminate**, a government-certified charitable trust (2018-2022)
- Won 2nd Prize in Men's Tennis Team Event at the **Anna University Zonal Tournament 2019-20** conducted by Anna University Sports Board.
- Won 3rd prize in Men's Tennis Singles at the **Chief Minister Trophy 2019-20** conducted by the Sports Development Authority of Tamil Nadu.