Mohan Babu L

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📰 Summary

- About **5.9 years** of demonstrated history working with **HPC Engineering**, **Data Analytics** and **Python**.
- Decisive, **efficient team player** and have experience working in global and distributed agile teams.
- **Quick learner** with good analytical skills and easily adaptive to any work environment.

⚙ Skills

- *Programming languages*: Python, Bash, C
- *Cloud Technologies*: Amazon Web Services, Azure, GCP
- *System Tools*: Jenkins, AMD uProf, GNU perf, gdb, Slurm, Spack, Git, Containers
- *Linux Distributions*: Cent OS, Ubuntu, RHEL
- *Compilers*: AOCC, GCC, ICC, LLVM
- *HPC Libraries*: BLAS, LAPACK, LibFLAME, FFTW
- *Parallel Programming Models*: OpenMPI, OpenMP

👥 Professional Experience

Senior Software Engineer
AMD, Bangalore, India   Feb 2019 – Present

📈 HPC Engineering

Performance Benchmarking, Profiling, System Tuning, Automation, Application Porting, Python, Linux

Contribution:

- Developed **Spack recipes** for **15+ HPC applications** with AMD toolchain support which simplifies building and running Scientific codes on AMD EPYC Servers by contributing to Open Source Spack project.
- **Ported 5+ Parallel Scientific codes** with AMD CPU toolchain and generated detailed performance benchmarking report which then used by Compilers and Libraries team to improve application performance.
- Collaborated with Compilers and Libraries team to **build a Jenkins pipeline to validate HPC applications** functional and performance behaviour with monthly stable releases which helped teams to reduce turn around time in fixing the issues.
- **Evaluated 20+ HPC applications with 3 Toolchains on 2 AMD EPYC generations** (Zen2, Zen3) to assess software and hardware performance against Competition which helped in setting up the goals.
- **Addressed 50+ customer issues/requests** and raised 20+ defects in Compilers and Libraries.

Senior Associate
8K Miles, Chennai, India   June 2016 – Jan 2019

AWS, GCP, Azure, Data Analytics, Python, Linux

Contribution:

- **Developed a video annotation tool to annotate faces and emotions** at frame level and achieved more than **50% reduction** in time to create gold standard data set with increased accuracy in the annotation.
- Developed **10+ Client API python scripts** to communicate with various cloud services to load, store and get response then parse the response into readable format.
- **Worked on a POC on Natural Language User Interface (NLUI)**, enables users to compose questions in Natural Language and receive the response also in Natural Language from internal database, it worked for small queries.
- **Generated benchmark reports on Sentiment Analysis, OCR and Face detection** for Cognitive services on AWS, GCP, Azure and IBM cloud.

♥ Professional Affiliations and Interests

- **Contributed more than 80% of the pull requests** to support AMD CPU toolchain for more than 15+ applications: AMD contribution to Spack
- Maintained build and run commands for **Micro Benchmarks and HPC applications** sections: Spack guide
- Earned company's **Executive Spotlight award (Q4 2021)** for excellent job done in promoting AMD CPU toolchain to ISV, Universities, and other customers.
- Earned company's **Spotlight award (Q4 2020)** for developing SPACK recipes with AMD Software Toolchain (AOCL) and applications include NAMD, WRF, CP2K, QE and OpenFOAM.
- Bagged **First Prize at 14th National level technical Symposium** on Palm Vein Technology paper.
- **Certifications**: Python Bootcamp, Python for Data Science, High Performance Computing for Scientists and Engineers, Linux Operating System. Etc.

Interests

- HPC on Cloud Computing enthusiastic.
- Explores various engineering advancements to know how world is implementing/automating stuff.

🎓 Education

National Institute of Technology (NIT), Puducherry, India   2014 – 2016

M.Tech. in Computer Science Engineering (CSE), CGPA: 7.61/10

Teaching Assistant; Summer intern at IIIT D&M Kancheepuram