

DRUVA KUMAR GUNDA

College Station, TX – Open to relocation | +1 (979) 739-4049 | dgunda03@tamu.edu | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

EDUCATION

Texas A&M University

Master of Science in Computer Science, **GPA 4.0/4.0**

Coursework: Algorithms, Operating Systems, Parallel Computing, Network Security, Software Security, Information Retrieval.

January 2023 – December 2024

College Station, TX

National Institute of Technology Raipur

Bachelor of Technology in Computer Science and Engineering, **GPA 8.75/10.0**

July 2017 - May 2021

Raipur, India

TECHNICAL SKILLS

Programming Languages: C, C++, Python, bash, Java, JavaScript, Typescript, SQL, Ruby on Rails, HTML, CSS

Libraries & Frameworks: JQuery, NodeJs, Boost, Numpy, Pandas, Matplotlib, Scikit-Learn, Seaborn

Tools & Platforms: Keras, TensorFlow, PyTorch, PyTorch DDP, PyTorch Lightning, torchrun, fast.ai, Angular, Jasmine, SonarQube.

Development Techniques: Docker, Kubernetes, BigQuery, Looker Studio, Singularity, Github, Perforce, Postman, Slurm Manager, Azure, Git

WORK EXPERIENCE

SLB

May 2024 - August 2024

Digital Technology Backend Intern – (**Docker, Kubernetes, BigQuery, Looker Studio**)

Houston, TX

- Engineered and implemented data-driven solutions using SQL, BigQuery, and Looker Studio to optimize cloud resource utilization and generate actionable insights. Accelerated usage cost analysis processes by **8x** through creating interactive dashboards, streamlining operations, and improving efficiency.
- Leveraged cloud technologies (**Kubernetes**, Virtual Machines) to analyze **microservices** application performance and identify cost optimization opportunities. Collaborated effectively with cross-functional teams to design and deliver a cost management solution aligned with business objectives.

Texas A&M University – High Performance Resource Computing (HPRC)

August 2023 – May 2024

Graduate Research Assistant – (**HPC Benchmarking, PyTorch DDP, Distributed DL**)

College Station, TX

- Successfully executed performance assessments across **4** Texas A&M University supercomputers. Initiated job execution on **15** Slurm cluster nodes using Singularity images to support Large Language Models such as **BERT** and **GPT-2**.
- Utilized and scaled **3** distributed deep learning strategies - Data, Model, and Tensor Parallelisms - across **30** GPUs in single and multi-node configurations, demonstrating expertise in optimizing model training and execution.

Factset

April 2022 – December 2022

Software Engineer - II – (**Angular, C++, Python, SonarQube, Jasmine**)

Hyderabad, India

- Improved API latency by **50** ms through strategic endpoint development (CPP and Python) and elimination of data hub locks, enhancing overall system performance and user experience.
- Developed a securities modeling application that drove a **2x** increase in Customer Retention, demonstrating expertise in creating high-impact software solutions that drive business growth.
- Successfully migrated Factset Deployment pipelines from Jenkins to GitHub Actions, achieving a **60%** reduction in application deployment time and streamlining development workflows for increased efficiency.

Software Engineer – I – (**Angular, C++, Python, SonarQube, Jasmine**)

June 2021 - March 2022

- Created an Angular library that significantly reduced dependencies by **4x**, streamlining application interactions and improving overall system efficiency and maintainability.
- Successfully enhanced application builds for modeling interest rate shocks, resulting in a **2x** acceleration of UI rendering. Leveraged the JAMS grid scheduler to initiate portfolio analytics and actuarial scenario jobs, leading to a **30%** increase in customer satisfaction.

PROJECTS

BeatBuddy: Constructed a multimodal search engine that accepts queries via text and audio inputs. Implemented **COLBERT** for text-based search and K-Nearest Neighbors (**KNN**) algorithm for song recommendations.

CodeJudge: Built a Ruby on Rails web application for automated student coding assignment grading, factoring in the number of attempts and their types. Drove a **70%** decrease in the need for manual assessment in determining problem difficulty levels.

Strassen's recursion: Developed a parallel implementation of Strassen's recursive algorithm for matrix multiplication using **OpenMP**, optimizing computational efficiency in a shared-memory environment.

Virtual Machine Monitor Development in xv6 Kernel: Designed a virtual machine monitor (**VMM**) within the xv6 kernel to enable loading and execution of a guest xv6 kernel, enhancing virtualization capabilities and system-level understanding.

Buffer Overflow and Return-Oriented Programming (ROP) Attack: Analyzed and exploited buffer overflow vulnerabilities and triggered Return-Oriented Programming (**ROP**) attacks to demonstrate security weaknesses and strengthen defensive measures in software systems.

LEADERSHIP

- Worked as group leader for k12 students in **GenCyber** Camp at Texas A&M University (2023).
- Assisted for Intelligence Processing Units (IPU) tutorial at **PEARC** Conference, Portland (2023).
- Functioned as Executive Member in Go Green Committee at NIT Raipur (2017-2020).