Murali Venkateswara Gopi Krishna Ponnada

Jersey City, NJ | (607) 595.7476 | gopisai2421@gmail.com | LinkedIn/pmvgk | GitHub/gopimurali

Education

Binghamton University, SUNY, Thomas J. Watson College of Engineering & Applied Science **Binghamton, NY**
MS in Computer Science | CGPA : 3.8/4.0 *Aug 2022-May 2024*
Chaitanya Bharathi Institute of Technology (A), Osmania University **Hyderabad, India**
Bachelors of Engineering in Electronics and Communication Engineering *Aug 2015-May 2019*

Skills

Languages: Python, Java, JavaScript, TypeScript, Bootstrap, CSS3, HTML5
Databases: MySQL, MongoDB, SandraDB
Frameworks, Libraries, Tools and Others: Angular, NodeJS, Express.js, Django, Flask, Jira, Git, Postman, Quartz, Eclipse, Visual Studio Code, MATLAB, pandas, NumPy, matplotlib, Yolov5, MacOS, Windows, Angular Material, PrimeNG, Jasmine, Karma, Protractor, Selenium, VMware, Microsoft Office, Microservices, Docker, REST API, JSON, XML, Agile methodology, SDLC

Work Experience

Bank Of America | Application Developer | New York, NY *Oct 2024-Present*
Equities Trading (RAM EQTRADES - FRONT OFFICE)

- Developed python-based solutions handling ~1M trades/day with <1% error rate, leveraging concurrency and Quartz scheduling for sub-second latencies and implementing code reviews, unit testing, and CI/CD to reduce production issues by 15%.
- Migrated multiple AMPS servers, reducing latency by 10% and boosting reliability by 12% in critical trading workflows.
- Orchestrated codebase refactoring and concurrency optimizations, delivering near real-time trade executions under peak load conditions.
- Worked with cross-functional teams to deliver critical system enhancements, improving throughput and ensuring timely sprint releases.
- Partnered with product owners and stakeholders to define deliverables, ensuring rigorous compliance, and risk mitigation
- Created a new FRR flow for the downstream systems for the equities instrument, transaction and position data
- Implemented data-driven decisions via Grafana, Kibana, and Splunk, cutting production incidents by 8% and executed several code changes handling critical incidents ensuring the SLA isn't breached and downstream systems receive accurate data.
- Integrated pre- and post-trade validations for equities, streamlining compliance checks and minimizing operational risk across multiple regulatories.

Binghamton University | Research Intern | Binghamton, NY *Jul 2024-Oct 2024*
Brain Aging Study

- Preprocessed and converted brain scan images using Python, enhancing data quality and analysis accuracy.
- Developed and aligned continuous brain scan sequences, contributing to insights on cerebral blood flow dynamics in aging populations.
- Analyzed and visualized brain blood flow patterns, aiding in the study of age-related neural changes and presenting findings to professors.
- Utilized data handling techniques in Python to overcome challenges related to large-scale neuroimaging data, which improved the accuracy of image processing.

Infosys | Senior Systems Engineer | Hyderabad, India *Dec 2019-Aug 2022*
Regulatory Reporting Application (CIRRUS - MIDDLE OFFICE)

- Improved trade processing and reporting for **Bank of America**, end-of-day risk systems using the **QUARTZ** platform (BAML proprietary development platform on Python), optimizing functionalities for accurate trade processing, resolving issues associated with currency conversions, FX trades, and trade record masking
- Enhanced algorithms for valuations processing, leading to a 40% improvement in exposure reporting accuracy and a 60% decrease in valuation errors.
- Optimized functionalities to generate accurate values for outgoing fields, and event types resulting in a 10% better **transaction** reporting
- Resolved reporting issue impacting 80k to 100k trades daily for un-collateralized trades resulting in better **collateral** reporting
- Implemented a comprehensive error handling mechanism, reducing reporting errors by 25% and ensuring compliance with regulatory standards, thereby mitigating financial risks associated with inaccurate reporting
- Provided Level 3 (L3) developer support, maintaining system stability and addressing complex issues affecting daily processing.
- Contributed to new business proposals by incorporating new rules and regulations, considering the risk and impact of multiple assets (FX, EQ, IR, CR) across different jurisdictions (CFTC, Canada, MiFID, HKMA, SEC, ASIC, EMIR, etc.)

Project Experience

Blood Bank Management System | Binghamton University

- Developed a cloud-based System to streamline blood inventory management, automate tracking of donations and requests, and ensure data security, using AWS services (Lambda, DynamoDB, S3, API Gateway), React.js and Node.js.
- Implemented a user-friendly platform for donors and patients to request and donate blood, increasing availability and access, and improved operational efficiency by reducing errors, saving time, and enhancing service quality.

Analysis of Health Reddit Data | Binghamton University

- Conducted data analysis on health-related data from Reddit using Python, Matplotlib, and MongoDB. Implemented sentiment analysis and topic modeling for discussions on the platform, revealing insights into user engagement and sentiment trends