Pratik Ashok Sajnani

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WORK EXPERIENCE

Senior Software Engineer

Microsoft   September 2024 - Present, Redmond, WA

- Lead the implementation and deployment of new telemetry features for AzureSecurityPack leading to successful execution of goal driven scenarios as a part of Protect Microsoft campaign for more than 14 million nodes
- Developed scanners for emitting file metadata and dynamic script execution payloads to enhance the security posture of Microsoft's 1P standard services
- Added several event monitors to improve product quality and enhanced support for memory management by adding event based counters resulting in overall reduction of incident queue from 60 per on-call to less than 10.
- Collaborated with security researchers and threat detection authors to tune aggregation intervals and filters for events resulting in overall reduction of memory footprint

Principal Software Engineer

Fidelity Investments   June 2023 - Feb 2024, Jersey City, NJ

- Led the development and maintenance of a smart order router and crossing engine, collaborating with a cross-functional team of 10 engineers to ensure seamless functionality and performance optimization
- Enhanced accuracy of time library for daylight savings by implementing rigorous testing procedures and modifying algorithms, resulting in a 99.9% error-free time conversion. Developed a dynamic calendar system that automatically updates holiday schedules, eliminating the need for manual adjustments and reducing scheduling conflicts
- Collaborated with the operations team to identify and address critical points of failure within the backend infrastructure, resulting in a successful implementation of redundancy measures and system upgrades. Increased overall system uptime by approximately 3 hours per week, enabling seamless 23x7 operation
- Successfully designed, tested, and released backend functionality for execution correction/updation for missed intra-day trades, leading to reduced manual intervention and automated backend updates

Senior Developer

Barclays Capital   Aug 2022 - March 2023, New York, NY

- Designed a system to store market data used for statistical analysis by quants and QA engineers to run batch jobs. This directly improved the user's ability to monitor and stop several batch jobs at the same time
- Built an API to run queries over historical data using a date range to extract data for VaR and stress tests. Increased the scalability of data to handle queries by deploying code in lambda functions working over S3 data and Amazon tables accessible via an Amazon Gateway API endpoint

Associate Software Developer

Flextrade Systems   March 2018 - July 2022, Great Neck, NY

- Led the project to develop market making trading strategy with the ability to monitor, trade and acquire exposure in 500+ Index ETFs with avg. 20 constituents used for NAV pricing. This provided the ability to trade Common Stocks and ETF, Indices and Equity Linked Nodes(ELNs) across multiple venues including NYSE, JSE, CHiX and ASX
- Designed and implemented core backend software services for EMS and OMS aimed at scaling the trading workflow, resulting in improved trade execution quality, monitoring, and reporting
- Contributed and peer-reviewed other strategies including VWAP, TWAP, PCTV strategies that are used by 40+ clients including banks, hedge funds, and prop trading firms
- Developed a versatile NAV pricing engine capable of dynamically updating ETF valuations by aggregating constituent prices from real-time L1 and depth of book L2 data streams
- Provided L3 support for market making which included analyzing FIX messages to diagnose and debug critical production issues during live trading sessions to ensure uninterrupted trading

Software Engineer

Persistent Systems   Oct 2012 - July 2014, Pune, India

- Enhanced client website functionality through integration of new workflows, authentication implementation, and migration to a cloud-based solution
- Transitioned web pages from ASP.NET to MVC 5 architecture with ADO.NET backend and HTML5 frontend
- Deployed unit tests for proactive defect detection resulting in a significant reduction in post-release issues
- Performed comprehensive code analysis and optimization within Visual Studio 2012, addressing static code errors reducing cyclomatic complexity, and resolving memory leaks to enhance overall code quality and maintainability

EDUCATION

Masters of Science in Computer Science
Rochester Institute of Technology   2014 - 2017, Rochester, NY
Bachelors of Technology in Information and Communication Technology
Dhirubhai Ambani Institute of Information Technology   2008 - 2012, Gandhinagar, India

TECHNICAL SKILLS

Languages	C++ 11/14, python, C#, sql, bash
Environments and Tools	linux, mongodb, vim, bash, vscode, Visual Studio 2012, git, jira, agile methods
Cloud Technologies	AWS Lambda, Amazon S3, Amazon Tables, Amazon Gateway API, Windows Azure
Web Technologies	HTML5, CSS, javascript, postgresql, MS SQL Server 2008-2012