Manisha Goyal

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Education

New York University (NYU) — New York, NY
Masters in Computer Science — Sep 2023 – May 2025 (expected)
- Courant Institute of Mathematical Sciences, GPA: 4.0/4.0
- *Coursework*: Fundamental Algorithms, Operating Systems, Programming Language, Data Science, Artificial Intelligence

Singapore Management University (SMU) — Singapore
Bachelor of Science in Information Systems Management — Aug 2014 – Apr 2018
- Double Major in Information Systems and Analytics (Advanced Technology)
- *Coursework*: Software Engineering, Object Oriented Application Development, Computational Thinking, Data Mining

University of Mannheim — Mannheim, Germany
Exchange Semester, School of Business Informatics & Mathematics — Aug 2017 – Dec 2017
- *Coursework*: Large-Scale Data Management, Text Analytics, German Language

Skills

Languages: Java, Scala, Python, C, C++, Solidity, SQL
Web Technologies: Node.js, JavaScript, HTML, CSS
Libraries: Scikit-Learn, NumPy, Pandas, Matplotlib
Frameworks: SpringBoot, Flask, React, JUnit, Pytest, Behave
Cloud: OpenShift, Kubernetes, GCP, AWS
Databases: MySQL, PostgreSQL, Oracle
Methodlogies: Agile/Scrum, DevOps, Design Thinking
Dev Tools: Git, GitHub, Docker, Jenkins, Postman, Jira, Zenhub
Others: Linux, REST API, OpenAPI, Swagger, Apache (Kafka, Hadoop, Spark), Tableau, Quorum, Ethereum, Web3.js

Experience

J.P. Morgan Chase — Singapore
Software Engineer (Associate), Onyx by J.P. Morgan — May 2020 – June 2023
- Developed decentralized application from the ground up *(Java, Web3.js, REST APIs, Docker, Kubernetes)* for JPM Coin System, a first-of-its-kind permissioned blockchain network that allows near-instant cross-border liquidity funding for institutional clients
- Led development and live deployment of blockchain ledger *(Smart Contracts, Solidity)* for Partior, an inter-bank blockchain network enabling multi-currency atomic settlements across major global banks in under 2 minutes
- Built proof-of-concept *(Solidity Diamond Standard)* to make Partior's blockchain ledger scalable and upgradable, contributing to successful transaction of tokenized Singapore government securities on the Polygon network

J.P. Morgan Chase — Singapore
Software Engineer (Analyst), Cybersecurity — Aug 2018 – Apr 2020
- Developed Cybersecurity Data Lake *(Apache Hadoop, Apache Kafka, SQL, Linux, Docker)*, enhancing the firm's real-time cybersecurity incident monitoring capabilities by 75% and reducing incident response times by 30%
- As Global Application Owner, led deployment and production management of JPMC Cybersecurity Log Collector, enabling real-time processing of syslog messages across 200+ global systems with 99.9% uptime, enhancing security for critical operations

J.P. Morgan Chase — Singapore
Software Engineering Intern, Cybersecurity — May 2017 – July 2017
- Built an automation tool *(Java, SpringBoot)* to parse and analyze static security scanning results, boosting efficiency in the firm's application security assessments by over 90% and reducing the evaluation times by 80%

Singapore Management University — Singapore
Data Analyst Intern, Li Ka Shing Library — Nov 2016 – April 2017
- Conducted data mining and visual reporting on library usage patterns *(SQL, SAS, Tableau)*, leading to a 15% improvement in resource allocation efficiency and a 10% increase in student engagement with library services

Fujitsu-SMU Urban Computing and Engineering Lab — Singapore
Software Engineering Intern — Apr 2016 – Jul 2016
- Researched data-driven optimization techniques for maritime-port-urban logistics, and developed an e-Market Platform application *(Java, SpringBoot, SQL)* that reduced operational costs by 20% and increased logistical efficiency by 40%

Projects

House Value Prediction | *Python, Scikit-learn, XGBoost, Pandas, Matplotlib, SHAP values* — May 2024
- Developed a machine learning model using XGBoost and other techniques to predict residential property prices in Ames, Iowa, achieving an R^2 score of 0.918; provided actionable insights for real estate stakeholders to optimize investment strategies

Dice Game Simulation | *Python, Q-Learning, Reinforcement Learning* — May 2024
- Developed a dice game simulation utilizing Q-Learning to optimize dice-rolling strategies, dynamically adjusting decisions based on game state and past outcomes to maximize rewards; implemented features such as customizable game settings

Unix Shell Implementation | *C, Unix, Shell Scripting, Operating Systems* — Feb 2024
- Designed and developed a simplified Unix shell in C, incorporating functionalities like basic command execution, input/output redirection, pipe-based inter-process communication, and job control for process management