

Safal Gautam

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EDUCATION

- Fordham University, Graduate School of Arts and Sciences** New York City, New York, USA
Master of Science – Computer Science August 2023 – May 2025
Relevant Coursework: Software Engineering, NoSQL Databases, and Data Visualization
- Vellore Institute of Technology, School of Computer Science and Engineering** Vellore, India
Bachelor of Technology – Computer Science and Engineering; GPA: 9.08/10 July 2019 - May 2023
Relevant Coursework: Internet and Web Programming, Parallel and Distributed Computing, and Machine Learning

EXPERIENCE

- Fordham University, NY, USA | Graduate Assistant** August 2023 - present
 - Collaborated with Prof. Wenqi Wei as a Graduate Assistant on the 'Benchmarking In-Context Learning of ChatGPT' project, contributing to data collection, model evaluation, and fine-tuning tasks.
 - Contributed to project outcomes, including research findings and insights that advanced ChatGPT's performance in zero-shot and few-shot learning scenarios, showcasing strong analytical and research abilities.
- Resimplifi Inc., SC, USA(Contracted through Strym) | Remote Software Developer** Jan 2023 - August 2023
 - Led Python SCRAPY spiders to extract impactful data from 40-50 US real estate sites and seamlessly integrated it into Postgres SQL database for effectively managing a substantial volume of information.
 - Engineered an innovative data cleaning pipeline, converting unstructured and missing data into structured, valuable insights and elevating data quality by approximately 15%.
 - Achieved 25% processing time reduction by efficiently implementing data chunking and parallel processing for Selenium spiders.
 - Fine-tuned spaCy NER pipeline for efficient extraction of valuable key-value pairs from 48,000 property-related PDF files.
- Masovison Technology, Kathmandu, Nepal | Backend Development Intern** June 2021 - Aug 2021
 - Strengthened KAHA app's API with input validation for over 15 fields, enhancing data accuracy.
 - Revitalized location data and user profiles schemas, leading to a 5% improvement in efficiency.
 - Implemented robust error-handling, reducing service unavailability instances by 2% and enhancing user reliability.

SKILLS SUMMARY

- Languages:** JavaScript, Typescript, Java, Python, C, HTML, CSS
- Frameworks:** ExpressJS, NodeJS, ReactJS, Scrapy
- Tools:** Docker, GIT, GitHub, MySQL, MongoDB
- Platforms:** Linux, IOS
- Domain Skills:** Backend Development, Web Scraping, Machine Learning, Frontend Development(Intermediate)

PROJECTS

- Chatty Backend System (NodeJS, MongoDB, Redis, Socket.IO)**
 - Engineered a chat app backend, leveraging Redis caching to accelerate access by 30% and achieve peak performance.
 - Implemented features including authentication (signup, login, reset), real-time messaging, reactions, post interaction, user connectivity (follow, block), and notifications which enhanced user engagement.
 - Utilized WebSocket for instant communication, JWT for secure authentication, and adhered to RESTful API design principles leading to 50% decrease in potential API vulnerabilities .[Link]
- SnapBuy (ReactJS, NodeJS, MongoDB)**
 - Developed SnapBuy, a feature-rich e-commerce platform, showcasing expertise in full-stack development.
 - Implemented user-centric features including a shopping cart, product reviews, search functionality, and user profiles with order history.
 - Enabled efficient administration with capabilities such as product and user management, order tracking, and delivery status updates. [Link]
- Parallel Sudoku Solver (C, OpenMP)**
 - Developed a parallel Sudoku Solver in C using OpenMP, accommodating puzzles of various sizes (e.g., 4x4, 9x9, 16x16).
 - Conducted comprehensive testing and validation of the parallel Sudoku Solver, including rigorous testing against a wide range of Sudoku puzzles, to ensure accuracy and reliability of the solver's results across different puzzle complexities and sizes.
 - Achieved a 100% increase in solving efficiency and a 50% reduction in puzzle-solving time, making it both faster and more efficient through parallelization and algorithmic optimization. [Link]