Arshmeen Kaur

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EDUCATION

Lambton College — Ottawa, ON
Post Graduation in Full Stack Software Development, 3.61/4 — *Sept. 2024 – Present*

Thapar Institute of Engineering and Technology — India
Bachelors of Engineering in Electronics and Communication, 7.33/10 — *Aug.2019 – July 2023*

EXPERIENCE

Cipher Square Technologies — Feb 2024 – July 2024
Software Developer — *Delhi, India*

- Developed RESTful APIs using Flask to facilitate communication between NLP modules and front-end components, improving integration efficiency and enabling scalable deployment.
- Enhanced NLP models to improve text analysis accuracy by 20%, while implementing user interaction features to increase engagement and streamline user feedback collection.
- Implemented AI models, improved data extraction accuracy by 30%, optimizing information retrieval across applications.

Eaton Corporation — Mar. 2023 – Sep. 2023
Data Science Intern — *Pune, India*

- Developed a Python-based search tool with NLP techniques, leveraging Named Entity Recognition (NER) to extract data from PDF and Excel files, enhancing data retrieval efficiency and user interaction.
- Engineered an Automatic Report Generation tool using Python, integrating PyQt5 and Tkinter for a user friendly interface.
- Streamlined Excel and Word interactions by incorporating openpyxl, docx, regex libraries, and Word VBA Macros, automating report generation and improving efficiency by 40%.

PROJECTS

Spiro | *Python, Algorithm Optimization, Constraint Satisfaction, CLI Tools, Unit Testing*

- Developed a high-performance backtracking algorithm in Python to solve 81-cell Sudoku puzzles, addressing the challenge of creating an efficient puzzle solver.
- Optimized algorithm with smart candidate selection and preprocessing to minimize backtracking steps, reducing average solve time to under 2 seconds.
- Validated performance by testing across 1,000+ puzzles of varying difficulty levels, achieving 100% accuracy and consistent speed benchmarks.

Spiro | *HTML, CSS, JavaScript, Responsive Design, Performance Optimization*

- Developed a responsive, cross-browser website using HTML, CSS, and JavaScript to effectively showcase products and company information.
- Implemented interactive UI features and optimized front-end code, enhancing usability and engagement across desktop and mobile platforms.
- Improved performance by optimizing assets and code structure, achieving a 90+ Lighthouse score and ensuring a seamless user experience.

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, HTML, CSS, SQL, Java
Frameworks: ReactJS, Node.js, Flask, Material-UI, RestAPI
Developer Tools: Git, Docker, Google Cloud Platform, VS Code, Visual Studio, PyCharm, Eclipse, Linux/Ubuntu
Libraries: Pandas, NumPy, Matplotlib, PyQt5, Tkinter
Core Skills: Data Structures, Object-Oriented Programming (OOPs), DBMS, DevOps/Cloud