I am an ambitious professional with a profound passion for computer science, specialized in project management ready bring your vision to life.

E-Portfolio

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Let's Go

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Professional Self-Assessment

I am pleased to share that I am a dedicated student of Computer Science, specializing in Project Management at Southern New Hampshire University. My academic journey has been focused on this field, as it aligns with my personal and professional aspirations. As the first in my family to specialize in Computer Science and the second generation to graduate from college, I am driven by a legacy of determination and a passion for innovation in the tech world.

I aspire to excel in the roles of Project Coordinator or Project Analyst, where I can leverage my skills in planning and executing projects, encompassing duties ranging from administrative tasks to data analysis and effective communication with stakeholders. My ultimate goal is to ascend to the position of PMO Director, overseeing a project management office and ensuring that business and project practices align with organizational strategies and objectives.

My academic journey has equipped me with a unique set of skills that make me well-suited for the demands of project management within STEM fields. My ability to analyze, evaluate, and comprehend various facets of the project lifecycle, as well as my skills in resource management and insights into team dynamics, are foundational to my approach. Technical projects demand meticulous planning and execution, skills I have developed and mastered. My proficiency in SQL and MongoDB and my experience in programming languages such as C++, C, Java, Python, and platforms like Android have fortified my technical understanding. Additionally, my adaptability to various project management frameworks, such as Agile, Scrum, Waterfall, and Lean, underscores my versatile approach to project management.

My technical and managerial skills are specifically tailored to meet the unique requirements of science and technology projects. My educational background has equipped me with essential skills ranging from foundational computer skills to project management frameworks. I have developed expertise in critical areas such as leadership and management techniques, ethics, project lifecycle management, and resource management. Project management in STEM, particularly computer science, requires applying structured methodologies and nuanced leadership to guide projects from inception to fruition. This entails addressing the tech sector's specific challenges and rapidly evolving dynamics.

My academic achievements at Southern New Hampshire University, particularly completing the computer science coursework, are a testament to my commitment and proficiency in this field. This ePortfolio showcases my educational journey and reflects my passion, skills, and readiness to contribute to the world of computer science and project management. I am eager to bring my combination of technical expertise, project management skills, and a collaborative, warm approach to future challenges and opportunities in this exciting and ever-evolving field.

Code Review

Software Engineering/Design-Junit Test Enhancement

Reflecting on my journey through the Computer Science program, I am pleased to present a narrative that illustrates my technical acumen. A steadfast dedication to continuous improvement and innovation has characterized my journey. I am proud to have further developed my JUnit testing framework for a software project, focusing on appointments and task management, showcasing my Computer Science and Project Management proficiency. This JUnit enhancement is a testament to my commitment to software excellence, as evident in the meticulous upgrades I have incorporated into my projects.

The enhancement of the JUnit testing framework for appointment and task management software is a pivotal project that has fortified my technical skills and aligned exceptionally well with the core objectives of my coursework. These enhancements highlight my project management and programming skills. The process underscores my ability to apply coding best practices in enhancing the software's functionality, security, efficiency, and user experience. Initially designed to support storing appointments and tasks, the JUnit test has been seamlessly woven into the software project, incorporating database integration, advanced search functionality, and user interface improvements, demonstrating my competency in developing functional, user-friendly, and robust software. The continuous improvement of the artifact, particularly in addressing potential design flaws related to security and efficiency, reflects my commitment to developing high-quality software.

I have employed strategies that bring together diverse audiences to support decision-making in computer science. The enhancements I integrated, such as Constructor Overloading and improved use of Whitespace, played a pivotal role in this process. These adjustments enhanced the code's readability and facilitated a more collaborative and inclusive approach to software development. My approach to coding best practices exemplifies my ability to design, develop, and deliver professional-quality communications. I removed Redundant Comments, rectified the Error in the equals Method, and improved the toString Method. These refinements ensured that my oral, written, and visual communications were coherent, technically sound, and adapted to specific audiences and contexts. Using the Lambda Expression for the Comparator and the proper

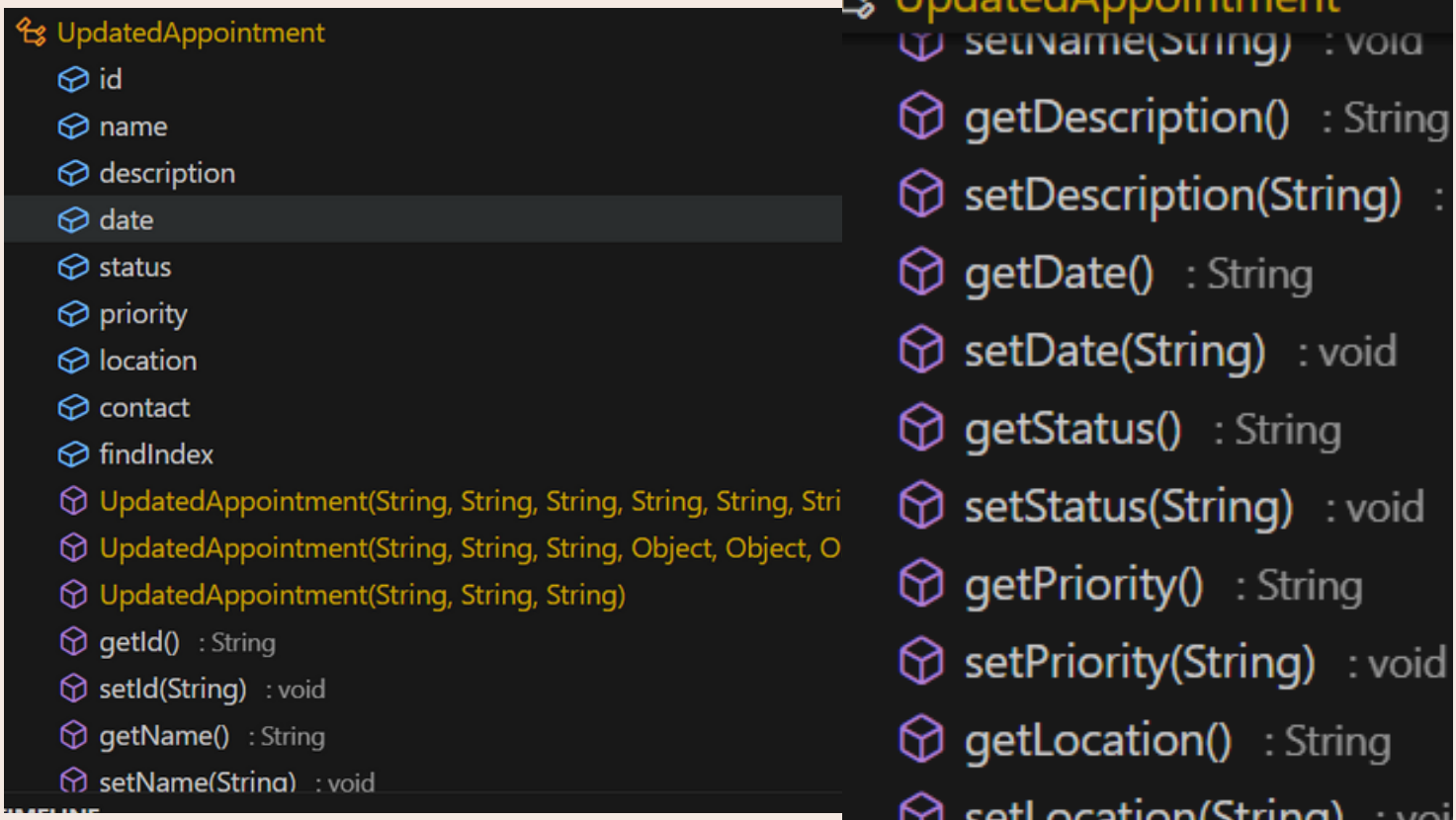
Software Engineering/Design- Junit Test Enhancement

Javadoc's Comments demonstrate my deep understanding of algorithmic solutions. My ability to implement innovative techniques and tools in computing practices is evident in how I addressed the Final Class or Extensibility Consideration and the Validation of Constructor Parameters. These enhancements underscore my commitment to delivering computer solutions that add value and accomplish industry-specific goals. Developing a security mindset was crucial in my projects. By anticipating potential vulnerabilities and designing software architecture to mitigate these risks, I showcased an acute awareness of software security. My enhancements, particularly in ensuring data security and consistency, testify to my ability to develop secure software.

The journey of enhancing the JUnit testing framework for appointment and task management software has been pivotal in shaping my future career aspirations. This experience has solidified my understanding of software testing and development and pushed me to the forefront of innovation and complex problem-solving. My expertise in troubleshooting complex problems and innovating solutions has fostered a deep interest in pursuing a career where these skills are paramount. The focus on developing a more secure and efficient application has heightened my interest in cybersecurity and system optimization. Developing a user-friendly interface in the project has sparked a keen interest in user experience (UX) design. This project highlighted the importance of continuous learning and adaptation in the ever-evolving field of software development. I am committed to staying abreast of new technologies and methodologies, aiming to incorporate these into my future roles, ensuring that the solutions I develop are practical and cutting-edge, which is a pivotal project management skill.

Although the frequent errors that necessitated constant re-running of tests were initially perceived as obstacles, they were valuable learning opportunities. Through this iterative process, I gained a deeper understanding of the importance of thorough testing in software development. Rectifying bugs and inefficiencies in the initial code honed my problem-solving skills and attention to detail, essential qualities in a software developer. Developing a user-friendly interface while ensuring the code was specifically set up to support it was a significant challenge. This task taught me user experience (UX) design nuances – balancing technical functionality with intuitive usability. Another challenge was optimizing the search functionality to handle various criteria efficiently. This required several iterations of tests and debugging, which helped me to refine my problem-solving skills and taught me the value of persistence in achieving my goals.

Software Engineering/Design- Junit Test Enhancement

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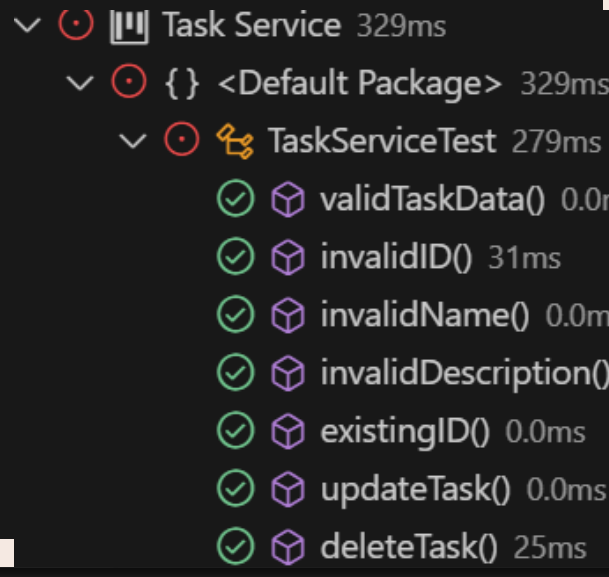


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Algorithms and Data Structure – RMA Report Enhancement

The artifact I am presenting is a sophisticated SQL script I developed for a Return Merchandise Authorization (RMA) system. This code was created with meticulous attention to detail and represents a significant milestone in my journey as a software developer. I crafted it during my advanced studies in Algorithms and Data Structures, a testament to my technical prowess and innovative thinking.

I included this artifact in my ePortfolio to showcase my SQL proficiency and deep understanding of algorithms and data structures. This script highlights several critical areas of my skillset:

1. Algorithmic Efficiency: I optimized query performance using indexes and capped collections, demonstrating my ability to write efficient and scalable code.
2. Data Integrity and Security: Implementing unique indexes ensured data integrity, underscoring my awareness of potential design flaws and the ability to address them.
3. Complex Data Manipulation: The script includes advanced operations, such as aggregation queries, reflecting my ability to handle complex data manipulation tasks.

This artifact aligns perfectly with my course objectives, demonstrating my capacity to design and evaluate computing solutions with algorithmic principles. Enhancing and refining this script has been in sync with my learning goals. I do not anticipate significant updates to my outcome coverage plans, as this script aligns well with the intended learning trajectory.

The journey of enhancing this artifact was both challenging and enlightening. I learned the importance of considering time complexity and optimizing for various scenarios. Each step, from creating databases and collections to executing complex queries, pushed me to think critically about the efficiency and scalability of my code.

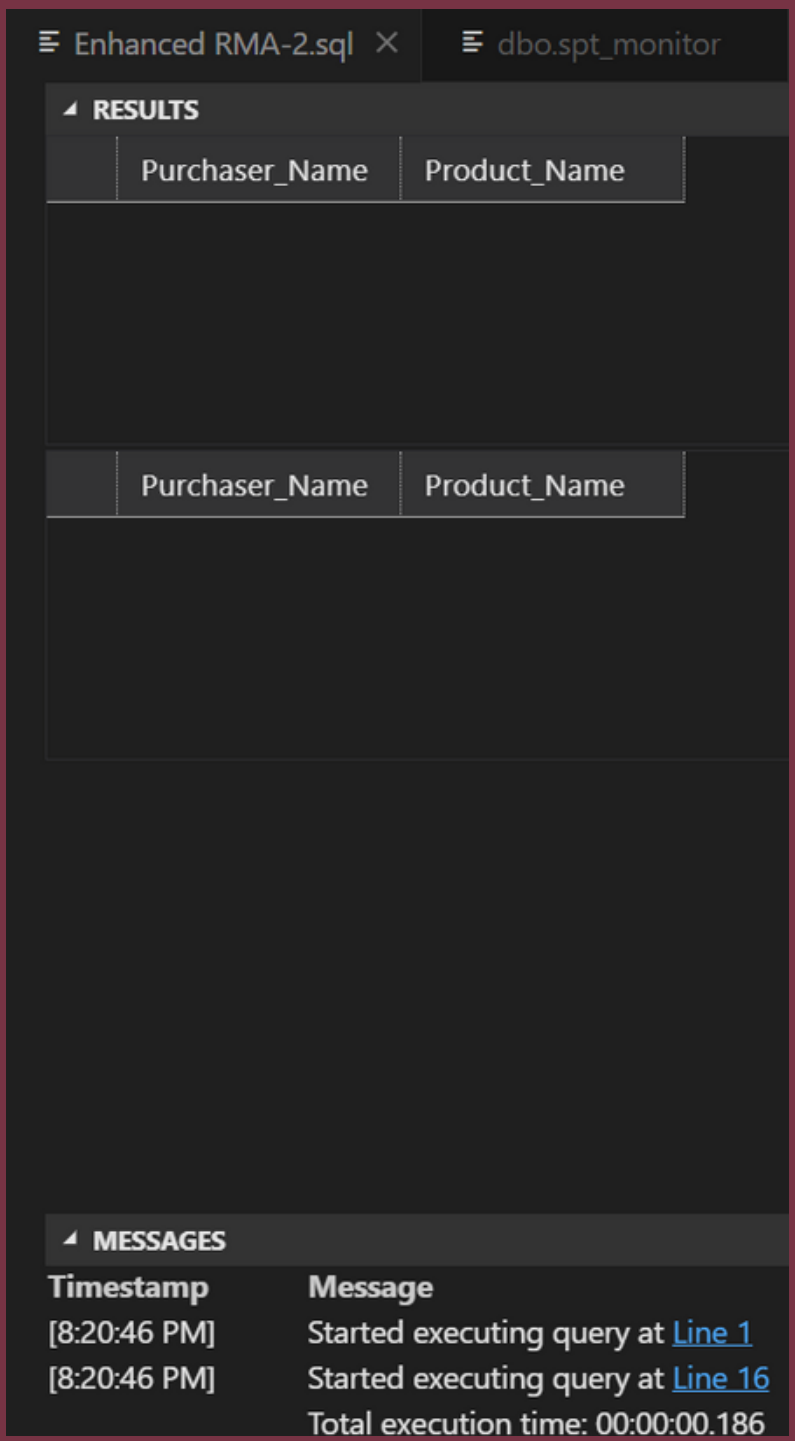
Algorithms and Data Structure – RMA Report Enhancement

One notable challenge was ensuring the script could handle large datasets without compromising performance. This led me to explore and implement capped collections and efficient indexing strategies. Additionally, ensuring data integrity through unique indexes posed a learning curve, which I successfully navigated.

My comments within the script are intentionally detailed, explaining the time complexity, efficiency, and optimization strategies for each operation. For instance, creating unique indexes is not just a procedural step but a strategic decision to enhance query performance (O(log N)) and maintain data integrity. Similarly, using capped collections for logs and implementing aggregation queries demonstrate my approach to handling large datasets efficiently.

In conclusion, this artifact serves as a testament to my innovative skills in implementing design solutions, programming solutions for logic problems, addressing potential design flaws related to security, and articulating my ideas and accomplishments. It demonstrates my ability not only to write code but also to think algorithmically, solve complex problems, and continuously refine and enhance my solutions.

Algorithms and Data Structure – RMA Report Enhancement



Databases - Database Documentation Enhancement

I am proud to present a significant milestone in my academic and professional journey - the comprehensive enhancement of the QuantigrationUpdates database using MongoDB. This project demonstrates my expertise in database management and cutting-edge techniques in data manipulation, algorithm integration, and system optimization.

Auditing and enhancing the database schema was a challenging exercise that required analytical thinking. It taught me how to identify and rectify data storage and retrieval inefficiencies, a crucial skill for any data scientist. Implementing advanced querying and data manipulation helped me expand my technical skills and explore more complex facets of MongoDB, enabling me to create more efficient data interactions.

The project was initiated with a clear set of objectives outlined in Module One of the course. It involved auditing and enhancing the existing database schema, which demanded collaborative decision-making and problem-solving skills. I am proud to state that I have surpassed these objectives.

Enhancing the QuantigrationUpdates database involved a multi-faceted approach that combined technical skills, analytical acumen, and strategic planning. The initial phase involved thoroughly auditing the existing database schema, which required critically examining the current structure and identifying data storage and retrieval inefficiencies. The enhancement process involved redefining the schema to optimize data organization and access, a crucial step in ensuring efficient database performance.

Implementing advanced querying and data manipulation expanded my technical repertoire, pushing me to explore and master complex facets of MongoDB and enabling me to craft more sophisticated and efficient data interactions. Integrating data mining algorithms was a foray into predictive analytics, providing me a deeper understanding of data-driven decision-making and its real-world applications.

Databases - Database Documentation Enhancement

One of the most significant challenges I encountered was balancing robust performanc and impenetrable security. Ensuring this required a deep dive into database management's theoretical and practical aspects. This phase demanded an innovative approach to address potential vulnerabilities and enhance the database system's performance. The complexity of this task lies in understanding the intricate workings o MongoDB and applying this knowledge to strengthen the database's architecture.

Creating top-tier documentation and communication materials highlights my ability to deliver professional-quality communications. This involved translating complex technical data into coherent, technically sound, and audience-appropriate materials, fulfilling the course's objective of developing and providing professional communication. This skill is invaluable, especially when bridging the gap between technical and non-technical stakeholders.

To overcome these challenges, I applied a combination of technical skills and theoretic knowledge. This included an advanced understanding of MongoDB methods and bes practices in coding, coupled with a strategic approach to problem-solving.

This project is a testament to my programming understanding and problem-solving capabilities, particularly in data storage, manipulation, and access. The successful implementation of security enhancements and the creation of a functional product underscores my technical competence and communication skills.

This experience has been pivotal in shaping my career trajectory, marking a significan milestone in my personal and professional life, laying a solid foundation for future data science and database administration pursuits. This project was more than just an academic or technical exercise; it was a transformative experience that has profoundly impacted my professional outlook and personal growth.

Databases - Database Documentation Enhancement

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