

Course	Skills	Strongest	Weakest	Github Examples of Work
<u>CIDM 5310</u> Business Intelligence and Decision Support System	<ul style="list-style-type: none"> • Python • Azure • Power BI • API • HTML • SQL 	<ul style="list-style-type: none"> • Proficiency in Python programming, strong grasp of Pandas for data manipulation and analysis, Matplotlib for visualization, and NumPy for numerical computations. • Familiarity with database management, schema design, writing complex SQL queries, and optimizing database performance. • Understanding the significance of business intelligence in guiding analytics projects. 	<ul style="list-style-type: none"> • Enhance understanding of advanced topics such as object-oriented programming and functional programming paradigms. • Tackle more complex scenarios, such as nested queries and advanced join operations. • Enhance knowledge of advanced methods such as regression analysis, time series forecasting, and hypothesis testing. 	https://github.com/CPT-G/CIDM5310
<u>CIDM 6308</u> Seminar in Data Analytics	<ul style="list-style-type: none"> • Excel • RapidMiner • Tableau • SQL 	<ul style="list-style-type: none"> • Strong proficiency in using Excel for data analysis, including functions, pivot tables, and data visualization tools. • Ability to create interactive and visually appealing dashboards, experience in data visualization and storytelling. • Proficient in using Power BI for data modeling, creating dashboards, and report generation. 	<ul style="list-style-type: none"> • Need to explore advanced features like Power Query and VBA for automation in Excel. • Enhance knowledge in advanced DAX functions and Power Query in Power BI. • Need to gain proficiency in using RapidMiner for data mining and machine learning tasks, including understanding its various operators and workflows. 	Quizzes and tests – No Repository
<u>CIDM 6351</u> Business Data Extraction, Transformation and Load	<ul style="list-style-type: none"> • Data Warehouse Fundamentals • Python • Data Cleaning • ETL and ELT 	<ul style="list-style-type: none"> • Strong command of table transformation and normalization processes for ensuring data integrity. • Proficiency in integrating database systems with Python 	<ul style="list-style-type: none"> • Gain more hands-on experience in designing and implementing database solutions for real-world scenarios. • Explore advanced data modeling techniques and tools 	DataCamp Classes – No Repository

	<ul style="list-style-type: none"> • Airflow 	<p>for enhanced data analysis and manipulation.</p> <ul style="list-style-type: none"> • Proficiency in data storage, queries, and database modeling techniques. 	<p>to enhance data integrity and structure.</p> <ul style="list-style-type: none"> • Tackle more complex SQL scenarios and optimize query performance. 	
<p><u>CIDM 6355</u> Data Mining Methods</p>	<ul style="list-style-type: none"> • Excel • RapidMiner • Tableau • Power BI • R 	<ul style="list-style-type: none"> • Proficiency in data preparation processes, including classification and decision tree algorithms, Naïve Bayes, and Logistic Regression. • Familiarity with clustering algorithms such as K-Means and advanced clustering issues. • Basic understanding of text mining techniques for extracting insights from unstructured data. 	<ul style="list-style-type: none"> • Gain more practical experience in database administration and implementation. • Further understanding of advanced normalization techniques and their impact on database performance. • Develop proficiency in R for data analysis, statistical modeling, and visualization. 	<p>https://github.com/CPT-G/CIDM6355</p>
<p><u>CIDM 6303</u> Technical Foundations in Computer Information Systems</p>	<ul style="list-style-type: none"> • Python • HTML/CSS • SQL • Ethics 	<ul style="list-style-type: none"> • Knowledgeable about internet protocols, communication standards, and web technologies. Understand the fundamentals of client-server architecture, HTTP/HTTPS protocols, and web hosting principles. • Understanding of ethical considerations in technology, including data privacy, security, and responsible AI practices. • Proficient in using Python libraries such as Pandas, NumPy, and Matplotlib for data analysis and 	<ul style="list-style-type: none"> • Explore more advanced web design techniques and tools to create even more dynamic and interactive web pages. • Limited experience in advanced database management concepts such as database normalization, indexing, and query optimization. • While proficient in Python programming, need to enhance skills in automating repetitive tasks using libraries such as Selenium, BeautifulSoup, and Pandas. 	<p>https://github.com/CPT-G/CIDM6303</p>

		visualization. Able to manipulate large datasets and generate insightful visualizations.		
<u>CIDM 6330</u> Software Engineering and Systems Development	<ul style="list-style-type: none"> • Python • Django • API 	<ul style="list-style-type: none"> • Competent in developing web-based applications using Python and Django frameworks. Capable of building interactive and scalable applications that meet business requirements. • Skilled in developing business value plans to align web development projects with organizational objectives. Able to identify key performance indicators (KPIs), target audience, and success metrics to drive project success. • Ability to clearly articulate project requirements and commitment to thoroughly understanding the consumer's needs ensure that software capabilities are effectively aligned with those needs. This approach helps to create solutions that are both innovative and precisely tailored to meet consumer demands. 	<ul style="list-style-type: none"> • Gain more hands-on experience in full-stack development by integrating front-end technologies similar to Django. • Explore advanced Django features and optimization techniques. Enhance proficiency in RESTful API design. • Explore advanced deployment techniques and marketing automation tools. • Lack of expertise in machine learning and data science techniques. 	https://github.com/CPT-G/CIDM6330
<u>CIDM 6340</u> Networking Management and Information Security	<ul style="list-style-type: none"> • NMAP • Wireshark • ShieldsUp • Nessus • Ransomware 	<ul style="list-style-type: none"> • Developed strong skills in network security assessments, identifying, and addressing potential vulnerabilities through hands-on experience. 	<ul style="list-style-type: none"> • Acknowledged the complexity of managing scalable networks and the need for further development in designing and 	https://github.com/CPT-G/CIDM6340

	<ul style="list-style-type: none"> • Recovery Plan 	<ul style="list-style-type: none"> • Proficient in network scanning and mapping, enabling comprehensive network reconnaissance. • Gained essential techniques for mitigating ransomware attacks and recovering compromised systems. 	<p>maintaining large-scale infrastructures.</p> <ul style="list-style-type: none"> • Noted difficulties in making real-time decisions during cyber incidents, highlighting the importance of refining decision-making processes. I want to explore AI options to resolve this gap. • Navigating the complexities of regulatory compliance can be challenging, particularly in sectors with stringent cybersecurity regulations. This highlights the need for further development in understanding and adhering to various regulatory requirements. 	
<p><u>CIDM 6341</u> Current Issues in Cybersecurity</p>	<ul style="list-style-type: none"> • ShieldsUp • Have I Been Pwned? • Phishing • CCleaner • Asset Inventory • Risk Assessment • Refog • John the Ripper • Contingency Plan • Security Audit 	<ul style="list-style-type: none"> • Familiar with using services like "Have I Been Pwned?" to check for compromised accounts and enhance security measures. • Proficient in using CCleaner for system optimization and maintaining clean, efficient, and secure systems. • Developed skills in maintaining an accurate asset inventory, crucial for effective network management. Gained experience in conducting risk assessments to identify and mitigate potential security threats. 	<ul style="list-style-type: none"> • Need to gain more hands-on experience in penetration testing to enhance offensive security skills. • Identified a gap in threat intelligence analysis, emphasizing the need to develop skills in understanding and preempting potential threats. • Recognized the importance of refining strategies for effectively addressing and mitigating security incidents. 	<p>https://github.com/CPT-G/CIDM6341</p>