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| Academic portfolio – Executive Summary | | |
|  | | |
| Program: | IT-Data Analytics Specialist | Tyler Black |
| Start Semester: | [Spring 2023] |  |
| Graduation Semester: | **[Fall 2024]** |  |
|  |  |  |

# First Semester

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|  | Course | **Course Takeaways** | **Artifacts: Files & Images** |
|  | Intro to Computers & Programming | * 1 Understanding basic programming concepts * 2 Familiarity with computer systems and architecture * 3 Problem-solving with programming logic | [Links] |
|  | Database 1 | * 1 Database fundamentals, including tables and queries * 2 Database design principles * 3 Intro to SQL | [Links] |
|  | Systems Analysis & Design | * 1 Fundamentals of system development life cycle (SDLC) * 2 Analyzing business requirements * 3 Designing system solutions | [Links] |

## Additional Comments

Other Courses: Microsoft Excel, Math & Logic, English Composition 1

# Second Semester

|  |  |  |  |
| --- | --- | --- | --- |
|  | Course | **Course Takeaways** | **Artifacts: Files & Images** |
|  | Database 2 | * 1 Advanced SQL queries and database management * 2 Database optimization techniques * 3 Implementing database security | [Links] |
|  | BI Data 1 - Paginated | * 1 Creating paginated reports for specific data views * 2 Customizing report layouts * 3 Exporting and sharing reports | [Links] |
|  | Programming Fundamentals | * 1 Advanced programming techniques * 2 Data structures and algorithms * 3 Introduction to object-oriented programming | [Links] |

## Additional Comments

Other Courses: Business Analytics, Oral/Interpersonal Communication

# Third Semester

|  |  |  |  |
| --- | --- | --- | --- |
|  | Course | **Course Takeaways** | **Artifacts: Files & Images** |
|  | Introductory ETL | * 1 Extracting, transforming, and loading data * 2 Using ETL tools for data processing * 3 Ensuring data quality and accuracy | [Links] |
|  | Python Data Programming | * 1 Python programming for data analytics * 2 Data manipulation with libraries like Pandas * 3 Basic data visualization | [Links] |
|  | BI Data 2 - Interactive | * 1 Designing interactive dashboards * 2 Using BI tools for dynamic data exploration * 3 Optimizing dashboard performance | [Links] |

## Additional Comments

Other Courses: Project Management/Data Analytics Advanced Survey, Intro to Sociology

# Fourth Semester

|  |  |  |  |
| --- | --- | --- | --- |
|  | Course | **Course Takeaways** | **Artifacts: Files & Images** |
|  | Data Security & Privacy | * 1 Data Privacy laws (HIPPA, GDPR) * 2 Implementing data security measures * 3 Risk Assessment and Mitigation | [Links] |
|  | Machine Learning | * 1 Model algorithm training: Supervised, Unsupervised, Reinforcement Learning * 2 Evaluation Processes * 3 Linear Regression | [Links] |
|  | BI Data 3 - Visualization | * 1 Advanced data visualization techniques * 2 Using BI tools for storytelling with data * 3 Communicating insights through visuals | [Links] |
|  | Data Analytics Capstone | * 1 * 2 * 3 | [Links] |

## Additional Comments

Other Courses: Intro to Psychology