TEODOR ANDREI GEORGESCU

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SKILLS

COMPUTER & TECHNICAL

- **Languages & Frameworks:** Python (+ Django), R, Java, SQL, C, Bash, Assembly, HTML, CSS
- **Networking & Protocols:** HTTP/HTTPS, TCP/UDP, IP/ICMP, MAC, DNS , Socket programing, WireShark
- **Tools & Environments**: Git & GitHub, Docker & DockerHub, Selenium, Insomnia, Slack, Linux (Ubuntu), Jira, Confluence, Citrix Workspace, Windows Active Directory, Microsoft Office
- **Hardware & Electronics:** Oscilloscopes, soldering tools, PCB Diagnostics, signal analyzers, Minicom/Teraterm,
- **Web Development**: Full-stack development with Django, API development
- **System Analysis:** RFPs, Project Charters, Requirements Engineering/Modeling, Use Case Modeling, Data Modeling, BPMN Process Modeling, UI Modeling, Project management, UML

Health Information Science

- **Clinical Systems:** EHR/EMR management, database development & analysis for healthcare applications
- **Data & Analytics:** Epidemiology concepts, data anonymization (K-Anonymity, L-Diversity, T-Closeness), SQL-based reporting
- **Healthcare IT:** Procurement processes, change-management strategies, medical terminology & clinical workflows

GENERAL

- Strong leadership, collaboration, and clear communication in multidisciplinary teams
- Logical problem solving, quick to learn new tools/technologies, and adept at multitasking
- Proven work ethic, delivering high-quality results under tight timelines

EDUCATION

UNIVERSITY OF VICTORIA, Victoria, Canada **May 2025**

Bachelor of Science (BSc) with Distinction, Computer Science and Health Information Science

- $3,000 Entry scholarship.
- Graduated with 3.85 GPA (85% average)
- Graduated with distinction in top 20% of graduating class

COURSERA, Vancouver, Canada **June 2024**

Meta Back-end Developer Professional Certificate

PROFESSIONAL EXPERIENCE

ISLAND HEALTH AUTHORITY - Clinical Application Analyst Co-op **|** Victoria, Canada **May 2024 – August 2024**

- Resolved over 1,200 account-related tickets (25–30% of team's monthly workload) for clinical applications (Paris, CareConnect, Vocera, TeleTracking, Strata Health Pathways, Procura)
- Managed user accounts in Citrix Workspace and Windows Active Directory, ensuring seamless access to clinical systems
- Collaborated with cross-functional teams to share knowledge and implement effective solutions, minimizing turnaround time for user requests

TANTALUS SYSTEM CORPS - Co-op Hardware Test Engineer **|** Burnaby, Canada **August 2023 – April 2024**

- Developed Python and Bash scripts to automate hardware tests, reducing manual effort and accelerating test cycles.
- Created a Bash script that cut Wi-Fi module test time from 10 minutes per unit to 10 minutes for 8 units.
- Developed a volt/current accuracy test script, decreasing test duration from 2–2.5 hours per unit to 15 minutes.
- Performed RF (Radio Frequency) communications testing and used a signal analyzer to diagnose signal sources.
- Processed and analyzed test data in Python and Excel, producing automated reports with conditional formatting to quickly highlight discrepancies.

PROJECTS

DATA SHIELD MD, School project **September 2024 - December 2024**

- Built a Django web application to securely anonymize datasets using K-Anonymity, L-Diversity, and T-Closeness algorithms.
- Designed user-friendly interfaces for managing datasets and user access.
- Automated data processing workflows, ensuring efficient file handling and privacy compliance.
- Deployed the application using Docker for scalability and seamless integration into different environments.

NETWORK PROJECTS, School project **September 2024 - December 2024**

- **Webserver Information Scraper**: Developed a Python-based tool to retrieve and display information about web servers. Gained hands-on experience with HTTP requests, response handling, and data parsing.
- **TCP Packet Analyzer**: Created a Python tool to analyze captured TCP packets, demonstrating a strong understanding of networking protocols and data extraction.
- **Traceroute Analyzer**: Developed an application to analyze traceroute captures, providing detailed insights into network paths and latencies, showcasing knowledge of ICMP and TTL mechanisms.

AI PROJECTS, School project **September 2024 - December 2024**

- **Search and Constraint Satisfaction**: Implemented search algorithms (random search, best-first search) and tackled constraint satisfaction problems, demonstrating problem-solving and algorithmic thinking.
- **Logical Reasoning**: Applied propositional and first-order logic to solve reasoning tasks, highlighting analytical and formalization skills.
- **Probabilistic Models**: Developed and used Hidden Markov Models for sequence prediction tasks, showcasing knowledge of probabilistic reasoning and temporal analysis.
- **Machine and Deep Learning**: Created machine learning and deep learning models for classification tasks, emphasizing data-driven solutions and model optimization.

OPERATING SYSTEM PROJECTS, School project **May 2023 - August 2023**

1. **Linux command piping (C):** Designed a program that can take up to four shell commands. Then executes the commands sequentially, emulating piping present in Unix-systems.
2. **Thread synchronization (C):** Developed a concurrent program using POSIX threads to simulate the formation of an ethynyl radical (two carbons and one hydrogen atom). Synchronization challenges were addressed to ensure proper combination of threads into atoms. I implemented both a mutex and a semaphore solution.
3. **CPU process scheduling (C**): Created a program simulating a multi-level feedback queue scheduler. Three queues were present with decreasing priorities and increasing time quantum from most priority to least being 2, 4 and 8 seconds respectively. The scheduler also included a mechanism to prevent indefinite wait time in lower priority queues.
4. **Linux file system operations (C):**
    - **Stat:** Extracted and printed information about the fie systems superblock and FAT entries.
    - **Ls:** Imitated the "ls" command in Unix but also showed file size and creation date.
    - **Cat:** Imitated the "cat" command in Unix displaying file contents to the console.

ASSEMBLY PROGRAMMING, School project **January 2023 - April 2023**

All coding was done on ATMega2560 Arduino board provided by the school for a class.

- **Project 1**: Developed functions in assembly language to control LEDs on the Arduino board. When completed, one could push strings onto the stack and illuminate corresponding LEDs for each letter in the word.
- **Project 2**: Implemented assembly language program for the LCD display and buttons on the Arduino board. Upon completion, the bottom right indicated if a button was pressed or not while bottom left displayed the last pressed button. The up and down buttons allowed navigation through a string while left and right buttons shifted the LCD cursor on the top row, enabling string reiteration at any column.

SMALL-SCALE ORACLE DATABASE APPLICATION, School project **January 2023 - April 2023**

- Collaborated in a team to build an Oracle DB application featuring tables, triggers, and authentication/authorization schemes.
- Designed UI elements (logos, banners, page items) for dynamic page rendering and data entry forms

SENTENCE CONCORDANCE, School project **September 2022 - December 2022**

Generate an array of sentences with each non-excluded word capitalized and aligned at column 30, omitting any sentence containing exclusion words and trimming surrounding context based on character limits.

- **C implementation (Dynamic):** Implemented a memory efficient program through dynamic programing techniques. Specifically, I used object-oriented programming to design a dynamic 2D-array structure.

- **Python implementation (Classes):** Used object-oriented design (classes) for modular, reusable code to process text files and exclusion lists, outputting formatted concordances

REFERENCES (AVAILABLE UPON REQUEST)