Georgia Chen

203 College St, ON | georgia.chen@mail.utoronto.ca | +1 (604)-338-8999

EDUCATION

University of Toronto, Bachelor of Applied Science *in Computer Engineering*, Toronto, ON, Canada, Sep 2021 – Apr 2026
Courses: Introduction to Database (SQL), Computer Networks (Network Architecture), Introduction to Control System, Digital Electronic (ICs), Algorithm and Data Structure (C), Operating System (C), Applied Fundamentals of Deep Learning (Python), Signals and Systems (Simulink) Computer Organization (Assembly), Software Communication & Design (C++), Digital System (Verilog), Circuit Analysis (AC circuit analysis), Probability and Application, Linear Algebra (MATLAB), Calculus III (Multivariable Calculus), Dynamics (Mechanics and Dynamic)

SKILLS/QUALIFICATIONS

C/C++, Python (matplotlib, numpy, pandas, scikit-learn, PyTorch), SQL, Linux environment, MS PowerPoint, PowerBI

WORK/RESEARCH EXPERIENCE

Support Reliability and Cost Analyst, MHI RJ Aviation Group, May 2024 – Aug 2025
A sixteen-month internship focused on aircraft reliability analytics and data automation
- Developed a machine learning-based Python program to analyze free-text aircraft snags, extract root causes using clustering (HDBSCAN), sentence embeddings (Sentence Transformer), and keyword extraction (KeyBERT); output structured summaries and root cause statistics
- Automated aircraft status tracking using Oracle-derived datasets; designed a Python workflow to analyze status trends, compare historical records, update live records, and detect inconsistencies in aircraft operations
- Designed a Power BI dashboard to visualize aircraft incidents; implemented a real-time alert system using DAX-calculated tables to flag unusual events against multi-year trend baselines

Soft Adaptive Hat For Brain-Computer Interface, Peking University, June 2023 – Aug 2023
A three-month summer research focused on creating an electrode hat using Liquid Crystal Elastomer (LCE) material
- Led the design and fabrication of an innovative electrode hat utilizing Liquid Crystal Elastomer (LCE) material to achieve one-size-fits-all functionality through contraction driven by body temperature
- Performed chemical experiments to synthesize and test various formulations of LCE material, successfully creating a specialized LCE compound that exhibits controlled contraction in response to body temperature changes
- Utilized 3D design software to optimize the hat's shape using analysis of the Curvature Characterization of Spherical and Linear Growth Derivation; generated STL files and wrote code to 3D print
- Fabricated customized molds tailored for the LCE material, enabled LCE to be highly sensitive to body temperature

ACADEMIC PROJECTS

OCR Receipt Scanner in PyTorch (Python), University of Toronto, Sep 2023 – Dec 2023

Created a deep-learning model that automates the receipt recording process, extracting the date and time of transactions, total expenditure, and merchant details to assist users in tracking personal expenses
- Constructed the model with three parts: text detection, text recognition and text extraction using ResNet, CRNN+VGG16 and RNN models
- Trained the model using 1000+ sample data with CTC loss, the model achieved 90% accuracy tested using Character Error Rate

Interactive Map Software (GIS) in C++, University of Toronto, Jan 2023 – Apr 2023
Developed mapping software using EZGL library and created Graphical User Interface (GUI) design using GTK; Git version control system was utilized for code documentation; the software was focused on usability and responsiveness
- Implemented algorithms such as greedy, A*and Dijkstra are greatly involved, along with various C++ STL containers
- Independently implemented night mode, display one-way street direction features; designed user interface and shortest path navigation using heuristic method with direction animation and in text, subway, stop signs and traffic signs; successfully solved the traveling salesman problem