Jefferson Liu

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EDUCATION

University of Toronto   Toronto, ON
Bachelor of Arts in Computer Science   *Sept. 2021 – May 2025*
- **Relevant Coursework**
  * **Foundations of Computer Science 1-2**: Fundamentals of programming in Python
  * **Data Structures and Analysis**: Fundamentals of Data Structures and Algorithms
  * **Software Design**: Software Design and Developmental Concepts using Object Oriented programming
  * **Introduction to Machine Learning**: Classification and regression using nearest neighbour methods, decision trees, linear models, and neural networks. Clustering algorithms.
  * **Introduction to Databases**: Introduction to database management systems. Relational algebra. Querying and updating databases: the query language SQL. Application programming with SQL

William Lyon Mackenzie CI   Toronto, ON
High school diploma (97% average)   *Sept. 2017 – June 2021*

EXPERIENCE

Software Developer Intern   May 2022 – August 2022
Ministry of Government and Consumer Services
- developed front end elements using Angular JS and React JS
- Worked on a SQL backend database implementing audit tables
- Collaborated actively with a team of 5 people to develop an internal web application to be used by over 50 people
- Developed using a Java backend and an XML and React JS powered UI

PROJECTS

Gamblers Choice | *Java*
- Local Multiplayer Poker game
- Developed in adherence to Clean Architecture and Solid Design Principles
- Heavy usage of Object Oriented Programming
- Led team of 8 developers using git version control

Emotion Detector | *Python, Keras, Tensorflow*
- Developed a program to detect facial emotions
- Augmented and pruned data using Keras and Pandas
- Created a CNN with early stopping and dropout to prevent overfitting
- Used CV2 to locate faces

AWARDS AND ACTIVITIES

Pico CTF| *Global top 10%*   Oct 2019
- Formed and led a team that competed in the 2019 Pico CTF
- Relegated roles and specializations
- Analyzed PCAP files with Wireshark

Cyberpatriot| *Gold*   Dec 2020
- Formed and led a team that competed in the 2019 Cyberpatriot cybersecurity competition
- Relegated roles and specializations
- Worked on windows security exploits and Cisco networking

William Lyon Mackenzie Honour Roll   2017-2021

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, HTML/CSS, R, C#, Typescript, XML, SQL
Developer Tools: Visual Studio Code, PyCharm, IntelliJ
Libraries and Frameworks: tensorflow, NumPy, Matplotlib, plotly, Angular JS, React JS, Keras