Keon Lee

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Education

Queen's University Expected May 2026
Bachelor of Applied Science, Engineering Physics and Computing *Kingston, Ontario*

- 2× Dean's Scholar Distinction – **GPA: 3.6**
- **Relevant Coursework:** Data Structures and Algorithms (C), Intro to CS II with OOP (Java), Fundamentals of Software Development (C/C++), Computer Architecture (VHDL), Computational Engineering Physics (Python)

Experience

City of Toronto May 2024 – Aug 2024
Computer Lab Attendant *Toronto, Ontario*

- Troubleshoots malfunctions of hardware and software applications for the purpose of determining appropriate actions to maintain computer lab operations for over 20 computers.
- Answer technical inquires from patrons and provide instructional material for the purpose of enhancing their understanding of computer lab operations, ensuring a smooth running of operations.
- Maintain and perform preventative maintenance of computer lab equipment utilized daily by over 30 patrons.

Bell Canada May 2023 – Aug 2023
Network Technician *Toronto, Ontario*

- Performed preventative maintenance and decommissioning on Bell's copper cable network, testing network electronics and writing network performance reports for over 20% of network switches in Toronto.
- Troubleshoot problems with existing networks and network components, and made on-sight corrections.
- Utilized networking equipment to perform system operational checks to verify connectivity of services.

Projects

Personal Website: keonlee.com {for additional information and projects}

Quantum Encryption Terminal Communication (QSSH) | Link | *Python, IBM Qiskit, Network Sockets, SSH*

- Deployed quantum encryption algorithm with Qiskit to solve future cyberattacks on AES through Python3.
- Produce Python scripts for connecting 3 VMs using network sockets and assisted with a terminal interface showing all network activity and possible cyber threats.
- Utilized MITM attck software to simulate a network intrusion of the encryption protocol and test the encryption performance, showing a success rate of >95%.
- Co-authored a research paper and presented findings to 320 delegates at an artificial intelligence conference.

3D Orbital Mechanics Simulation | Link | *Python, MatplotLib, NumPy, OOP*

- Developed a 3D simulation of orbital movement between 3 or more bodies, tracking position, velocity and acceleration data through Python3 and plotted in 3D using MatplotLib.
- Utilized optimization techniques, such as Barnes-Hut technique, to reduce simulation complexity through NumPy.

Hockey Expected Goal Modelling | Link | *Python, NumPy, Pandas, MatplotLib, Scikit-Learn*

- Developed a data visualization dashboard to classify the probability of shots resulting in goals using Logistic Regression achieving 90% accuracy.
- Displays vital information to dashboard such as shot position on rink, shot type, and probability of goal using MatplotLib.

Technical Skills

Languages: Python, Java, C/C++, HTML, CSS, JavaScript, MySQL
Frameworks/Libraries: React.js, Node.js, Pandas, NumPy, Scikit-Learn, MatplotLib, Bootstrap
Tools: VSCode, Git, GitHub, Jet-Brains suite, Office 365, Arduino IDE, SolidWorks, Fusion360, PowerBI
Knowledge: Agile SDLC, OOP, Relational database management, Encryption, Machine Learning, Quantum Computing