Kevin Qu

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Technical Skills

Languages:	Python, C, JavaScript, Java, C#, C++, HTML/CSS, Dart, MATLAB, SQL, Verilog
Frameworks:	ROS, scikit-learn, PyTorch, React, Node, Express, Flutter, ASP.NET, Axios, jQuery
Tools:	SQLite, Linux, HPC, Jira, Git, Postman, WordPress, Magento, Drupal, MongoDB, slurm

Education

University of Toronto   Sept 2021 – Present
BASc, Engineering Science
Average Grade: 93.6%, cGPA: 3.89/4.0, sGPA: 4.0/4.0, Dean's List Scholar
Courses: Data Structures & Algorithms, Digital Logic, Computer Architecture, Circuits, Linear Algebra, Calculus

Professional Experience

ML Undergraduate Research Student   May 2022 –Present
BHK Lab, University Health Network (pmgenomics.ca/bhklab) Toronto, ON
- Working with scientists and PhD students on cancer image segmentation, supervised by Dr. Haibe-Kains
- Developing ML pipelines, streamlining ML research by up to 5x (doi:10.5281/ZENODO.7021436)
- Creating U-Nets with PyTorch with high-performance computing (HPC), pipelining thousands of images
- Created data standardization and training ML models for Vector Institute AI challenge

Robotics Engineer   June 2022 - Present
UofT Aerospace Team (utat.ca/uas) Toronto, ON
- Fabricating rover bot, aircraft and drones to compete in SAE Aero Design – Advanced (saeaerodesign.com/)
- Robotics development in Linux environment with C++, Python, ROS and Gazebo virtual worlds
- Robot and aircraft design (electrical and mechanical) using SOLIDWORKS and Gazebo

ML Project Developer   Sept 2021 – May 2022
UofT Machine Intelligence Student Team (utmist.gitlab.io/projects/employeeattrition) Toronto, ON
- Created employee attrition prediction ML model, based on IBM workplace data
- Used scikit-learn's ML packages to develop supervised and unsupervised ML models
- Built website with fully-integrated model in Django that can generate inferences; won Best Technical Award
- Model predictions outperform current research on the same data

Software Engineer Intern   Jun 2021 – Aug 2021
Idea Notion Development Inc. (ideanotion.net) Markham, ON
- Developed C# console apps and Node.js scripts to call MapBox API for generating poster images
- Built webpages using HTML/CSS, JQuery, PHP and WordPress (ourposter.com/product/custom-city-map)
- Automated manual image editing with Python Pillow (dealerai.com)

Honors & Awards

University of Toronto Scholar (top 0.4% @ UofT)   2022
In-course scholarship awarded to the top 300 most outstanding undergrads out of 76,000 at UofT (top 0.4%)
Schulich Leader Scholarship ($100k) (schulichleaders.com/kevin-qu)   2021
$100,000 award to 50 outstanding engineering students at 20 universities across all Canada

Projects

IntelliCord (devpost.com/software/intellicord)   Aug 2022
- Hack the 6ix Finalist (Top 8 projects out of 70+ projects)
- AI Chatbot that provides mental health tips using co:here and GPT-3, made with Python and SQLite3

Abyss (devpost.com/software/abyss-ewprc1)   Feb 2022
- Hardware Hackathon—MakeUofT 2022 Best "Useless Invention" award, Category Winner
- Table that caves in when objects are detected. Arduino UNO with several electrical & mechanical parts

DialekTech (devpost.com/software/note-js-wcmbkh)   May 2020
- TOHacks 2020 DCP Runner-up Award
- Web-based audio processing education application using Node.js, MongoDB, Google Cloud API