Ben Nguyen

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Education

University of Waterloo - Bachelor of Mathematics in Physics and Computing Waterloo, ON
Co-op, President's Scholarship of Distinction, Member of WARG, UW Data Science Club *Sept. 2024 – May 2029*

Experience

Software Developer Sept. 2025 – Present
Waterloo Aerial Robotics Group (WARG) *Remote*

- Maintained front-end applications for drones, enabling real-time visualization of flight status and system data.
- Collaborate in a cross-disciplinary team of software, electrical, and mechanical engineers using Git workflows.
- Contribute to autonomous system development, reinforcing applied machine learning and systems thinking.

Project Team Member, Data-Driven Solutions for Global Challenges May 2025 – August 2025
Waterloo Experience (WE) Accelerate *Remote*

- Cleaned and analyzed 150+ datasets to extract pricing and market intelligence insights.
- Built analytical dashboards in Power BI, delivering actionable insights within tight deadlines.
- Synthesized findings into structured reports to support data-driven decision-making and experimentation.

Telephone Survey Interviewer Sept. 2025 - Present
University of Waterloo Statistical Consulting and Survey Research Unit *Waterloo, ON*

- Collected high-quality data using structured survey protocols for statistical research studies.
- Tested and validated surveys before deployment, improving data integrity and experimental design.
- Communicated complex questions clearly to diverse participants, strengthening collaboration skills.

E-commerce Analyst (Independent) April 2021 – Present
eBay *Mississauga, ON*

- Conducted market trend analysis to optimize over 300 listings, resulting in over $50,000 in revenue.
- Reduced shipping costs by 50% through process optimization and supplier negotiations.
- Negotiated prices with several clients, showing strong customer service and communication skills.

Projects

Lumped-Parameter Heart Model of Severe Aortic Stenosis | *Python, NumPy, Matplotlib*

- Developed a model to simulate aortic valve dynamics under healthy and severe aortic stenosis states.
- Implemented RK4 and Improved Euler methods to integrate the model and compare stability and accuracy.

Breast Cancer Classification using Scikit-Learn | *Python, Pandas, NumPy, Scikit-Learn, Matplotlib, Seaborn*

- Implemented K-nearest neighbors, support vector machine, and random forests to compare model performance.
- Achieved 98% accuracy and optimized hyper-parameters using GridSearchCV.

Harmony Meadows Alpaca Competitor Pricing Analysis Dashboard | *Word, Excel, Power BI*

- Developed a dashboard using Power BI that compares product pricing with competitor prices.
- Conducted product pricing with 5 competitors and added marketing suggestions for help with implementation.

Personal Website | *Git, HTML5, CSS3, JavaScript*

- Developed a responsive personal portfolio website using HTML5, CSS3, and JavaScript.
- Deployed using GitHub Pages, showcasing technical projects and contact information for networking.

Technical Skills

Microsoft Office: Word, Excel, PowerPoint, Power BI
Languages: Python, Java, C, JavaScript, HTML, CSS
Libraries: NumPy, Pandas, Scikit-Learn, Matplotlib, TensorFlow, PyTorch
Developer Tools: Git, Docker, Bash, Visual Studio Code, Linux, LaTeX, Jupyter Notebook, Voxco
Certifications: Machine Learning by Stanford University & DeepLearning.AI on Coursera. Earned on July 1, 2025
Relevant Coursework: Linear Algebra, Probability, Statistics, Computational Mathematics, Algorithms