

# ERIC VOONG

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## EDUCATION

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### University of Waterloo

September 2018 - August 2024

*Bachelor's, Mathematics*

- Major in Computational Mathematics
- Major in Information Technology Management

## PROFESSIONAL EXPERIENCE

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### Innovation Science and Economic Development Canada

Gatineau, QC, Canada

*Data Scientist*

May 2022 - April 2024

- Developed and implemented new metrics and visualizations for research reports, increasing trend analysis accuracy by 20% using machine learning libraries such as Pandas, NumPy, PyTorch, TensorFlow, and Scikit-Learn
- Enhanced data quality by 70% through the creation of robust data cleaning scripts that systematically standardized and validated datasets, leading to more reliable analyses
- Improved data classification and visualization by 30% by leveraging machine learning algorithms and NLP techniques to categorize unstructured data into meaningful segments

### OpenText

Markham, ON, Canada

*Software Developer*

May 2021 - August 2021

- Contributed to the CI/CD process of features for a high-performance remote desktop access solution by collaborating with product managers and developers in an agile environment, reducing deployment time by 20%
- Enhanced user experience by resolving 26 critical bugs across iOS, Android, and Linux platforms, leading to a 15% increase in user satisfaction
- Optimized application performance by 25% for NVIDIA hardware by integrating and fine-tuning NVIDIA's core SDK.

### Bell Media

Toronto, ON, Canada

*Data Analyst*

January 2020 - August 2020

- Reduced operational time by 25% by deploying robust ETL pipelines and automation workflows using SQL, efficiently processing large volumes of data from 14 platforms into a centralized data warehouse on GCP
- Enabled data-driven marketing strategies by developing comprehensive reports and dashboards with Tableau and Looker, increasing campaign efficiency by 20%
- Improved data management practices by 15% through the creation and maintenance of detailed technical documentation, including data dictionaries, data flow diagrams, and system documentation

## PROJECTS & OUTSIDE EXPERIENCE

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### Landscape Map Visualization (Python)

- Developed a patent landscape map by applying machine learning and NLP techniques, including TF-IDF, Principal Component Analysis (PCA), and Sentence Transformers, to extract key topics and trends from patent abstracts
- Improved trend analysis accuracy by 60% and presented insights to the Canadian Intellectual Property Office, showcasing the tool's ability to track emerging technological trends

### Reliable File Transfer Protocol over UDP (Python)

- Designed and implemented a reliable file transfer protocol over UDP, ensuring secure and efficient transfer of text files, and improving transfer reliability by 70% between hosts
- Integrated error detection and correction mechanisms, reducing data loss by 80% and maintaining reliable transmission even in high-noise environments

### Ticket Show & Artist Social Media Web Scraper (Python)

- Automated the extraction of ticket prices, event details, availability, and artist social media statistics from major ticket-selling websites and social media platforms using Selenium
- Optimized scraper performance by scheduling regular intervals for data collection and organizing results into CSV files for easy analysis with Pandas

## SKILLS

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**Programming:** Python, Java, R, SQL, MATLAB, JavaScript, Bash, HTML/CSS, C/C++, Assembly

**Tools:** Linux/Unix, Git, Jupyter Notebook, AWS, GCP, Kubernetes, Docker, Tableau, Looker, Jira, Power BI