

# Tong Su

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## Skills

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- **Languages:** Python, JavaScript, TypeScript, HTML5, CSS3, Kotlin, Java, C#, C, SQL, R, SAS
- **Frameworks:** Tensorflow, Scikit-Learn, PyTorch, Numpy, Pandas, Pillow, Django, React, Angular, Node.Js, Jetpack Compose
- **Software and Tools:** Tableau, PowerBI, OBIEE, Excel, PowerPoint, Git, Visual Studio Code, Figma

## Education

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- BSc. in Computer Science Specialist and Statistics Major** 09/2020 - 06/2024  
Major GPA: 3.9/4.0 CGPA: 3.8/4.0 University of Toronto
- Relevant Courses: Algorithm Design & Analysis, Operating Systems, Natural Language Computing, Neural Networks and Deep Learning
  - Teaching Assistant for STA130: An Introduction to Statistical Reasoning and Data Science

## Work Experience

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- Full Stack Developer | TypeScript, Django, .NET** 05/2023 - Present  
Northbridge Toronto, Canada
- Collaborate with the Digital Solution Team to successfully develop a robust [insurance website](#), catering to a customer base of over 10,000 users, encompassing both frontend **Angular** and backend **Django** components
  - Utilize **.NET** and **RestAPI** to integrate and process millions of customer data, facilitating smooth data flow from the frontend to the Duckcreek wave policy system
- Data Analyst Assistant | R, PowerBI, OBIEE, Tableau, Pandas** 05/2022 - 09/2023  
Ontario Public Service Toronto, Canada
- Visualized 10k posted transaction data using the **Power BI** and **Tableau** dashboard and report to the whole treasury board
  - Cleaned millions of datasets using **Pandas** and **R** data analysis to qualify the internal performance for the Internal Audit Branch

## Professional Experience

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- Fine-tuning Pre-trained Models for Low-Resource Neural Machine Translation** 01/2023 - Present  
Supervisor: [Annie Lee](#), Department of Computer Science, University of Toronto
- Enhanced low-resource translation by leveraging pre-trained denoising models, pivoting, and transfer learning techniques
  - Investigated the impact of various hyperparameters (adapters, patience, data size) on the performance of the **mBART** model using the **BLEU** score, surpassing the baseline and showcasing the effectiveness of the approach.
- Social Media Usage in Sexual Assault Organizations Through Image Analysis and Statistical Techniques** 09/2022 - Present  
Supervisor: [Jia Xue](#), Faculty of Information, University of Toronto
- Developed and implemented image analysis techniques using **Azure** to analyze a dataset of over 200,000 Instagram images, revealing insights into how sexual assault organizations utilize social media for promotion.
  - Conducted **linear regression** analysis using **R** to identify patterns in Instagram engagement, providing actionable recommendations for improving outreach and the impact of their social media accounts.
- Impact of Compression Ratio on Convolutional Neural Network (CNN) Accuracy in Medical Imaging** 09/2021 - 04/2022  
Supervisor: [Pascal Tyrrell](#), Department of Statistical Science, University of Toronto
- Investigated the impact of image size reduction through compression, and downsampling on **CNN** accuracy for medical imaging using **PyTorch**. Implemented confidence estimation techniques to assess the effect of image preprocessing on algorithm training.
  - Developed and optimized image compression and downsampling models using the **Pillow** library, improving CNN performance in medical imaging through efficient preprocessing of medical images.

## Projects

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- Water Filter Application Development | Kotlin**
- Developed a **Kotlin-based** application to promote a water-saving workshop and showcase a water filter demo
  - Acted as **product owner** and **backend developer**, designing and implementing ViewModels for different activities in the application
- Technical Tree Application Development | Java**
- Collaborated with a team of 6 to develop a **technical tree application** for educational purposes using **Java** and **Android**

- Designed and implemented key features of the application, such as interactive visualizations and content organization, to enhance user engagement and usability