

# Maggie Dong

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## EDUCATION

<b>University of Washington</b> , Seattle, WA	Sep 2022 - Jun 2024
<i>Master of Science, Statistics - Advanced Methods and Data Analysis</i>	<i>GPA: 3.63</i>
<b>University of Richmond</b> , Richmond, VA	Aug 2018 - May 2022
<i>Bachelor of Science, Computer Science and Mathematics</i>	<i>(top 5%) GPA: 3.90</i>
<b>University of Oxford</b> , Oxford, UK	Sep 2020 - Jun 2021
<i>Study Abroad Program, Mathematics</i>	

## SKILLS

<b>Programming Languages:</b>	Python, Java, C++, HTML, R
<b>Tools and Skills:</b>	PyTorch, PySpark, SQL, Databricks, Git
<b>Relevant Coursework:</b>	Algorithms, Data Structures, Database Systems, Software System Development

## RELEVANT EXPERIENCE

<b>PetSmart</b> , Data Scientist Intern, Seattle, WA	Jun 2023 - Sep 2023
<ul style="list-style-type: none"><li>Pioneered the creation of an automated market-share analysis model in <b>Python</b> and <b>SQL</b> for competitor analysis</li><li>Accelerated the site selection process by 50% and increased the profits by 30% with business insights</li><li>Built an <b>automated ETL data pipeline</b> in Python for data processing on Databricks for customer analysis</li><li>Developed and verified datasets in SQL and <b>PySpark</b> based on communications with Business Intelligence team</li><li>Automated web-scraping in <b>Python</b> and HTML for efficient acquisition of up-to-date competitor information</li><li>Optimized competitor data quality and processing streamline, leading to valuable insights for business decisions</li></ul>	
<b>Orbbec 3D Technology</b> , Software Engineer Intern	Jun 2021 - Aug 2021
<ul style="list-style-type: none"><li>Increased sales by updating the real-time distance estimation model for autonomous driving scanner in <b>Python</b></li><li>Increased the accuracy of disparity figures from 63% to 85% by adding an edge-aware upsampling structure</li><li>Utilized <b>PyTorch</b> for performance tuning and optimization on GPUs and fine-tuned the neural network structure</li><li>Built a tester for disparity estimator to enhance model precision and visualize the losses during training</li></ul>	
<b>Argument Mining on Tweets</b> , Research Assistant	May 2020 - Jul 2020
<ul style="list-style-type: none"><li>Performed text classification of Tweets with <b>PyTorch</b>, employing Machine Learning network structures and Natural Language Processing (<b>NLP</b>) models, such as Convolutional Neural Networks (<b>CNNs</b>) and BERT</li><li>Drove data-processing and model development efforts resulting in interpretable textual features in <b>Python</b></li></ul>	
<b>Transmitting, Compressing, and De-noising Images</b> , Research Assistant	May 2019 - Jul 2019
<ul style="list-style-type: none"><li>Conducted research on image, audio, and numerical data for information compression in <b>MATLAB</b> and <b>R</b></li><li>Utilized frame modeling and wavelet transforms for image smoothing and frame testing</li></ul>	

## PROJECTS

<b>Extremely Dark Image Enhancer</b> , Deep Learning Class Project	Mar 2023 - Jun 2023
<ul style="list-style-type: none"><li>Spearheaded the design and construction of an instruction-based image-enhancement pipeline in <b>Python</b></li><li>Enhanced image color by 37% and overall image quality by 54% while preserving critical details</li><li>Integrating techniques such as instruction-based <b>fine-tuning</b>, <b>in-context learning</b>, and <b>attention mechanism</b></li><li>Leveraged the infrastructure of <b>deep learning models</b>, InstructPix2Pix and Zero-DCE, for image quality boosting</li></ul>	
<b>Statistical Learning Projects</b> , Statistical Learning Class Project	Jan 2022 - May 2022
<ul style="list-style-type: none"><li>Applied statistical techniques across various datasets, employing models and conducting data analysis in <b>R</b></li><li>Delivered impactful business insights through visualization tools to non-technical audiences for collaboration</li></ul>	
<b>Chinese Student Association Website</b> , Backend Developer	Aug 2018 - May 2021
<ul style="list-style-type: none"><li>Collaborated within a team of 8 to improve the Chinese Student Association Website in <b>HTML</b> and <b>CSS</b> by refactoring and maintaining the existing website, ensuring reliability, responsiveness and user-friendliness</li></ul>	
<b>Movie Production Database</b> , Database Systems Class Project	Jan 2021 - May 2021
<ul style="list-style-type: none"><li>Designed and implemented a relational database in <b>MongoDB</b> to address real-world business challenges</li><li>Encompassed data retrieval, logical model development, relational model structuring, and complex SQL queries</li><li>Revised analysis methods and delivery focus based on data updates and presentation feedback</li></ul>	
<b>Traffic Intersection Simulation</b> , Software System Development Class Project	Jan 2020 - May 2020
<ul style="list-style-type: none"><li>Led a team of 4 to design and implemented a complex traffic simulation program in <b>C++</b></li><li>Reviewed code by other developers and provided constructive feedback for coding and documentation</li></ul>	