# Chengyu(Andy) Bao

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#### **Education**

# Georgia Institute of Technology - Atlanta, GA

Expected graduation Dec 2022

M.S in Computational Science & Engineering, GPA 4.0/4.0

• Coursework: Computer Vision, Algorithms, Machine Learning, Data & Visual Analytics, Computer Simulation, Regression Analysis, Numerical Linear Algebra

## University of Washington - Seattle, WA

Sep 2017 - Apr 2021

B.S in Mathematics, GPA 3.6/4.0

- Dean's List 2017-2021, National Honor Society and Unite UW member
- Coursework: OOP, Data Structures, SQL and NoSQL database, Linear Algebra, Statistics & Probability, Optimization, Stochastic Process

# **Work Experience**

## Panzura (Intern in QA Automation) - San Jose, CA

July 2021 – Aug 2021

- Used Java Selenium to move over 17000 test templates and related test case information from a local server to Atlassian Jira Cloud.
- Reduced the maintaining cost of the local server, increased information security and improved agility and flexibility of the testing process.

# **School Projects**

#### CSE 6140 Graduate Algorithms – Atlanta, GA

Aug 2021 - Dec 2021

- Implemented a simulated annealing algorithm for the Travelling Salesman Problem.
- Achieved ~2% error for small datasets and ~9% error for large datasets with relatively high speed.

## CSE 6740 Computational Data Analysis – Atlanta, GA

Aug 2021 – Dec 2021

- Analyzed supply chain data from DataCo. Utilized models like Logistic Regression, Random Forest, and XGBoost to make predictions on late delivery and fraud probability.
- Achieved accuracy of 0.729 on late delivery probability and 0.977 on fraud probability.

# CSE 6242 Data & Visual Analytics - Atlanta, GA

Jan 2022 - Current

- Leverage SBF-GPT based classification model to build a toxic language detection model that detects whether a given statement implies stereotypes and provide detailed explanations for the implied harms.
- Applied the model on three large datasets from Twitter, visualize the distribution of different biases through an interactive interface built with q3.js.

#### CS 6476 Computer Vision – Atlanta, GA

Jan 2022 – Current

- Implement a Panorama Stitching app based on Python. Utilize Harris Corner Detector to extract features and RANSAC to establish geometric correspondences.
- Design and train deep convolutional neural networks for scene recognition. Fine-tune a pre-trained ResNet architecture and achieve an accuracy of 90%.

## **Personal Projects**

## **Crown Clothing Web App**

Feb 2021 - Apr 2021

- Implemented an e-commerce clothing website based on JavaScript, React.js, and HTML.
- Styled the front-end using Bootstrap CSS, implemented user registration & authentication using Firebase, handled payments using Stripe API.

## Skills

**Programming:** Java, R, Python, Selenium, JavaScript, Scala, PySpark, MySQL, React.js, HTML

Platforms & Tools: AWS, Linux, Git, Numpy, PyTorch, TensorFlow, Scikit-learn