

YU MING HE

DATA + SOFTWARE

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Skills and Interests

Technologies: C/C++, Python/Pandas/NumPy, Java, JavaScript/Node.js/React.js, PHP, SQL, R, MATLAB, Unix, Git

Interests: Data Science, Competitive Programming, Piano, Sport Swimming, Literature, Film/Theatre

Experience

Citadel

New York City, NY

Software Engineer Intern

Jan - April 2021

- Incoming Software Engineer Intern. Delayed due to the global pandemic.

Facebook AI

Menlo Park, CA

Data Engineer Intern

May - Aug 2020

- Developed data pipelines to sample and sanitize Instagram Image data and used computer vision classification modelling to detect underlying distributions, trends, and bias in image features.
- Uncovered dataset shift between production Instagram Images and Computer Vision Classification Training Data using emerging methodologies such as Black Box Shift Detection and the Kolmogorov-Smirnov Test Statistic.

Statistics Canada

Ottawa, ON

Data Science Intern

May - Aug 2019

- Designed and implemented an unsupervised error-estimation algorithm in R and C++ with Statistical Bootstrapping and Monte Carlo Simulation, halving average runtime compared to the original implementation.
- Implemented a record linkage algorithm for encrypted profiles of Canadian Citizens using probabilistic data structures and tested on sample of 1 million records.

Delta-Q Technologies

Burnaby, BC

Software Engineer Intern

Jan - April 2019

- Designed and implemented a Java data pipeline application to automate the process of validating and transferring firmware to data warehouses accessible by manufacturers overseas.
- Decreased runtime of a file-parsing application through refactoring and parallelizing execution with Java threads.

Education

University of British Columbia

Expected Graduation: April 2021

Honours, Bachelor of Science in Statistics and Computer Science

cGPA: 3.8+, Major GPA: 3.9+ / 4.0

- Involvements: Building Futures Scholarship, Rutherford Scholarship, NSERC Award, Dean's Honour List, Vice President: Undergraduate Statistics Society, Elected Faculty Representative, Co-Chair: Student Building Commission
- Relevant courses: Artificial Intelligence, Advanced Algorithms, Numerical Computation, Statistical Inference.

Technical Projects

🔗 RLEE (R, C++)

- An unsupervised error estimation algorithm on linked records in a constrained population.

🔗 Minutes Made (React.js, Node.js, Python, PostgreSQL, Docker, Redis)

- Web application which live-transcribes meetings and performs action items upon spoken key-phrases.

🔗 A. Ladha Bookings (Python)

- An automated bookings system for the highest trafficked student building on the UBC campus.