

XIUGE CHEN

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ACADEMIC QUALIFICATIONS

The University of Melbourne, Australia

Master of Science (Computer Science, with Distinction)

Thesis: *Approximation Algorithms for Streamed Sparse Graphs*

Supervisor: Prof Anthony Wirth

July 2018 – Present

Overall GPA: H1/H1, 92/100

Nanjing University, China

Bachelor of Science (Biological Science), minor in Finance

Thesis: *The Relationship between Methylation Modification and Gene Expression in Tumor Cells*

Supervisor: Prof Jing Wang

Sep. 2014 – June 2018

Overall GPA: 90/100

PUBLICATIONS

Journal

- Chaofan Wang, Zhanna Sarsenbayeva, **Xiuge Chen**, Tilman Dingler, Jorge Goncalves, Vassilis Kostakos. *Accurate Measurement of Handwash Quality Using Sensor Armbands: Instrument Validation Study*. JMIR mHealth and uHealth, 2020.

Proceeding & Conference

Unpublished Manuscripts

- **Xiuge Chen**, Rajesh Chitnis, Patrick Eades, Anthony Wirth. *Sublinear-Space Streaming Algorithms for Estimating Graph Parameters on Sparse Graphs*. Submitted to STACS 2022
- **Xiuge Chen**, Namrata Srivastava, Rajiv Jain, Jennifer Healey, Tilman Dingler. *Characteristics of Different Reading Modes on Desktop and Mobile Devices*. Submitted to CHI 2022

RESEARCH EXPERIENCE

Theory Group, The University of Melbourne

March 2020 – July 2021

Approximation Algorithms for Streamed Sparse Graphs

Supervisor: Prof Anthony Wirth

- Design sublinear-space algorithms with strong theoretical guarantee that approximate various graph problems (e.g., dominating and independent set) for sparse graphs in data streams.

Human-Computer Interaction Group, The University of Melbourne

Oct. 2018 – July 2021

Detecting Cognitive Biases with Biophysical Sensors to Battle Misinformation Supervisor: Dr. Tilman Dingler

- Design experiments to induce people's confirmation bias and trained effective models to identify the presence of confirmation bias using accessible biophysical data.

Investigating Reading Behavior on Electronic Devices

Supervisor: Dr. Tilman Dingler

- Design experiments to induce deep and shallow reading behavior on digital devices. Identify important eye movement characteristics and trained a high-performing classifier.

Using Ubiquitous Sensing to Detect Episodes of Hand-washing

Supervisor: Prof Vassilis Kostakos

- Build machine learning models that can accurately classify hand-washing steps using IMU data.

Other

Methylation Modification and Gene Expression in Tumor Cells

Supervisor: Prof Jing Wang

- Analysis the statistical correlation between promoter methylation and gene expression.

Mmdecoder

Supervisor: Prof Ian Korf

- Design simple Hidden Markov model to annotate the genetic origins of a mouse strain.

WORK EXPERIENCE

Graduate Software Engineer, Optiver APAC

August 2021 – Present

- Develop high-performing software tools for better trading risks management and control.

Research Assistant, The University of Melbourne

July 2020 – July 2021

- Recruited by Dr. Tilman Dingler from the Human-Computer Interaction Group.

Teaching Assistant, The University of Melbourne

Feb. 2019 – July 2021

- Database Systems (INFO20003, undergrad-level core subject, Feb. 2019 – July 2021)
- Computer Systems (COMP30023, undergrad-level core subject, Feb. 2020 – July 2021)
- Declarative Programming (COMP90048, graduate-level core subject, Feb. 2021 – July 2021)

Software Engineer Intern, Optiver APAC

Nov. 2019 – Feb. 2020

- Develop software for trading data verification, and low-latency message protocols to support auto-trading.

Software Engineer Intern, Huawei Technologies Co.

Nov. 2018 – Jan. 2019

- Develop efficient remuneration calculation systems to support China Mobile's daily business logic.

AWARDS

- Graduate with Distinction (2021, The University of Melbourne)
- Outstanding Graduate (2018, Nanjing University, equivalent to *summa cum laude*)
- People's Scholarship (2014 – 2017, Nanjing University, top 10% of the cohort)
- National and State Basketball Championships (2011 – 2014, China)

MISCELLANEOUS

Activities

Clubs and Societies: Leadership Club (vice president); Student Union (minister)

Sports: University and high school basketball team (captain)

Languages:

Mandarin: Native

English: Full professional proficiency