

XIUGE CHEN

Email: xiugechen@gmail.com

Website: <https://xiugechen.github.io/>

EDUCATION

The University of Melbourne, Australia

July 2018 – July 2021

Master of Science (Computer Science, with Distinction)

GPA: 92/100, 4.0/4.0

Thesis: *Approximation Algorithms for Streamed Sparse Graphs*

Supervisor: Prof Anthony Wirth

Nanjing University, China

Sep. 2014 – June 2018

Bachelor of Science (Biological Science), minor in Finance

GPA: 90/100, 3.77/4.0, top 10%

Thesis: *Methylation Modification and Gene Expression in Tumor Cells*

Supervisor: Prof Jing Wang

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 three 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 cognitive bias and trained generic models (up to 83% accuracy) to classify confirmation bias and cognitive dissonance using biophysical data, e.g., gaze, fNIR, HRV, EDA, etc.

Investigating Reading Behavior on Electronic Devices

Supervisor: Dr. Tilman Dingler

- Design experiments to induce deep and shallow reading behavior on digital devices. Provide novel eye movement insights and trained high-performing classifiers (up to 0.82 AUC).

Using Ubiquitous Sensing to Detect Episodes of Hand-washing

Supervisor: Prof Vassilis Kostakos

- Build models that can accurately classify (up to 91% accuracy) hand-washing steps using IMU and EMG data from upper-arm armbands.

Other

Mar. 2017 – June 2018

Methylation Modification and Gene Expression in Tumor Cells, 2018

Supervisor: Prof Jing Wang

Annotate Genetic Origins of Mouse Strains via Hidden Markov Model, 2017

Supervisor: Prof Ian Korf

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. Available at <https://mhealth.jmir.org/2020/3/e17001/>

Unpublished Manuscripts

- **Xiuge Chen**, Rajesh Chitnis, Patrick Eades, Anthony Wirth. *Sublinear-Space Streaming Algorithms for Estimating Graph Parameters on Sparse Graphs*. Manuscript Submitted for Publication. 2021. Available at: https://xiugechen.github.io/docs/manuscripts/sublinear-space_2022.pdf

- **Xiuge Chen**, Namrata Srivastava, Rajiv Jain, Jennifer Healey, Tilman Dingler. *The Eyes Have It : Characteristics of Deep Reading Activities on Desktop and Mobile Devices*. Unpublished Manuscript. 2021. Available at https://xiugechen.github.io/docs/manuscripts/the-eye-have_2022.pdf
- **Xiuge Chen**, Benjamin Tag, Catherine E. Davey, Tilman Dingler. *Battle Misinformation: Detecting Cognitive Bias with Eye Movements*. Unpublished Manuscript. 2021. Available at https://xiugechen.github.io/docs/manuscripts/battle-misinformation_2022.pdf

WORK EXPERIENCE

- Graduate Software Engineer**, Optiver APAC August 2021 – Present
- Develop efficient 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
- 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)

TEACHING EXPERIENCE

- 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)

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