# **Gromit Yeuk-Yin CHAN**

A08-429, 345 Park Avenue, San Jose, CA 95110

Email: gromit.y.chan@google.com · Website: www.gromitchan.com · Google Scholar: t7tR7O0AAAAJ

# **RESEARCH INTEREST**

Visualization, Data Management, Human Computer Interaction

## **EDUCATION**

2016 - 2021 New York University

Ph.D in Computer Science

Advisors: Cláudio T. Silva, Juliana Freire

Committee: Enrico Bertini, Luis Gustavo Nonato, Arvind Satyanarayan

2012 - 2016 The Hong Kong University of Science and Technology

BEng in Computer Engineering and BBA in General Business Management

Advisor: Huamin Qu

2005 - 2012 Queen's College, Hong Kong

Hong Kong Advanced Level Examination: Distinction in Physics

## PROFESSIONAL EXPERIENCE

2021 July - Now	Research Scientist, Adobe Research, San Jose, CA
2020 May - Aug	Research Intern, Adobe Research, San Jose, CA
2019 Jun - Sep	Research Intern, Adobe Research, San Jose, CA
2019 Feb - Apr	Visiting Scholar, diNo Research Group (Paris Descartes University), Paris, France
2017 Jun- Sep	Research Intern, Bosch Research, Palo Alto, CA
2016 Aug - 2021 July	Research Assistant, NYU VIDA (Visualization, Imaging, and Data Analytics Center), Brooklyn, NY
2015 Jun - 2016 Aug	Undergraduate Researcher, <b>HKUST VisLab</b> , Hong Kong
2015 Jan - May	IT Consulting Intern, IBM Global Business Services, Hong Kong
2014 Jun - Aug	Software Engineering Intern, Orient Overseas Container Line (OOCL), Hong Kong
2013 Sep - Dec	Design Consulting Intern, Harman Kardon, Hong Kong
2013 Jun - July	Logistics Intern, <b>GE Healthcare</b> , Beijing, China

#### **PUBLICATIONS** (★ indicates premier venues)

#### **Conferences and Journals:**

- Jun Yuan, <u>Gromit Yeuk-Yin Chan</u>, Brian Barr, Kyle Overton, Kim Rees, Luis Gustavo Nonato, Enrico Bertini, and Claudio T Silva. SUBPLEX: A Visual Analytics Approach to Understand Local Model Explanations At the Subpopulation Level. *IEEE Computer Graphics and Applications (CG&A)*, 2022

 Gromit Yeuk-Yin Chan, Fan Du, Ryan A Rossi, Anup B Rao, Eunyee Koh, Cláudio T Silva, and Juliana Freire. Real-Time Clustering for Large Sparse Online Visitor Data.
 The Web Conference (WWW), 2020 (Accepted for Oral Presentation) ★

Gromit Yeuk-Yin Chan, Luis Gustavo Nonato, Alice Chu, Preeti Raghavan, Viswanath Aluru, and Cláudio T Silva.
 Motion Browser: Visualizing and Understanding Complex Upper Limb Movement Under Obstetrical Brachial Plexus Injuries.
 IEEE transactions on visualization and computer graphics (TVCG), 2020 (Proceedings of VIS 2019) ★

5. Gromit Yeuk-Yin Chan, Panpan Xu, Zeng Dai, and Liu Ren.

VIBR: Visualizing Bipartite Relations at Scale with the Minimum Description Length Principle. *IEEE transactions on visualization and computer graphics (TVCG)*, 2019 (Proceedings of VIS 2018) ★

Quan Li, Peng Xu, Yeuk-Yin Chan, Yun Wang, Zhipeng Wang, Huamin Qu, and Xiaojuan Ma.
 A Visual Analytics Approach for Understanding Reasons behind Snowballing and Comeback in MOBA Games.
 IEEE transactions on visualization and computer graphics (TVCG), 2017 (Proceedings of VIS 2016) ★

7. Yeuk-Yin Chan and Huamin Qu.

FinaVistory: Using Narrative Visualization to Explain Social and Economic Relationships in Financial News. *International Conference on Big Data and Smart Computing (BigComp)*, 2016

#### Workshops, Demos and Posters:

- Gromit Yeuk-Yin Chan, Shunan Guo, Caroline Kim, Cole Connelly, Michelle Lee, Andrew Thomson, and Eunyee Koh.
   Detecting Email Components with Constraints: Expressive and Extensible Models in Answer Set Programming.
   Conference on Human Factors in Computing Systems (Late Breaking Work) (CHI LBW), 2023 ★
- Shubham Agarwal, <u>Gromit Yeuk-Yin Chan</u>, Shaddy Garg, Tong Yu, and Subrata Mitra. Fast Natural Language Based Data Exploration with Samples.
   ACM International Conference on Management of Data (SIGMOD), 2023 ★
- 3. Peter Xenopoulos, <u>Gromit Chan</u>, Harish Doraiswamy, Luis Gustavo Nonato, Brian Barr, and Claudio Silva. GALE: Globally Assessing Local Explanations.

  ICML Workshop on Topology, Algebra, and Geometry in Machine Learning, 2022 (Spotlight) ★
- Yeuk-Yin Chan, Fernando Chirigati, Harish Doraiswamy, Cláudio T Silva, and Juliana Freire.
   Querying and Exploring Polygamous Relationships in Urban Spatio-Temporal Data Sets.
   ACM International Conference on Management of Data (SIGMOD), 2017 (Best Demo Honorable Mention) ★
- 5. Rong Zheng and Yeuk-Yin Chan.

You Like What You Hear: Using Movie Content to Improve Movie Recommender Systems. Winter Conference on Business Intelligence, 2016

 Abishek Puri, Dongyu Liu, Shaoyu Chen, Siwei Fu, Tianyu Wang, <u>Yeuk-Yin Chan</u>, and Huamin Qu. ParkVis: A visual analytic system for anomaly detection in DinoFun World. *IEEE VIS Workshop on VAST Challenge*, 2015

## **PATENTS**

- 1. Trait Expansion Techniques in Binary Matrix Datasets. Filed 2022.
- 2. Segmenting users with sparse data utilizing hash partitions. US Patent App. 17/660,328.
- 3. Methods and Systems for Simplified Graphical Depictions of Bipartite Graphs. US Patent 10,650,559, 2020.

#### **TEACHING**

2020 Spring CS-GY 9223 Visualization for Machine Learning (15 students)

2020 Spring CS-GY 9223 Visualization: Connections with Machine Learning (23 students)

2018 Fall CS-GY 6313 Information Visualization (46 students)

2016 Fall CS-UY 1134 Data Structures and Algorithms (51 students)

## **MENTORING** (only includes students I directly supervise)

Tongyu Zhou (Brown); Zhihua Jin (HKUST)
 Huayi Wang (Gatech) - ML Query Acceleration
 Pat Sukprasert (Northwestern) - Dataset Discovery

#### PROFESSIONAL SERVICES

#### **Program Committee:**

• WWW (2022, 2023), WSDM (2022), CIKM (2022)

#### Reviewer:

ACM CHI (2021, 2022), IEEE VIS (2019, 2020, 2021), WWW (2020), EuroVis (2017, 2019, 2020), PacificVis (2020), IEEE CG&A, IEEE TVCG

# PRESENTATION, NEWS AND MEDIA COVERAGE

2022 Project Style Blast

Adobe Summit Sneaks

2021 Interactive Audience Expansion On Large Scale Online Visitor Data

KDD, Singapore

2021 Data Summaries for Scalable Visual Analysis

Dataminr, New York; Megagon Labs, Mountain View; Adobe Research, San Jose

2020 Real-Time Clustering for Large Sparse Online Visitor Data

The Web Conference, Taipei

2019 Visualizing and Understanding Complex Upper Limb Movement Under Obstetrical Brachial Plexus Injuries

IEEE VIS, Vancouver

2018 Visualizing Bipartite Relations at Scale with the Minimum Description Length Principle

AT&T Graduate Student Symposium, New York City; IEEE VIS, Berlin

2016 Student Hackers Team Up with Manhattan DA to Fight Human Trafficking

2016 科網雲圖: 財經新聞大數據 (in Chinese)

2016 科大生研大數據獲邀海外演講 (in Chinese)

#### AWARDS/HONORS/CERTIFICATIONS

2018 VIS Student Volunte
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2017 SIGMOD Student Travel Grant

2016 NYU School of Engineering Fellowship

2016 Bronze Prize of ASM Technology Award

2016 Mr Armin and Mrs Lillian Kitchell Undergraduate Research Award

2016 Technology and Management Elite Student Scholarship

2015 Honorable Mention, IEEE VAST (Visual Analytics Science and Technology) Challenge 2015

2013 HKSAR Government Scholarship Fund - Reaching Out Award

2012 University Entrance Scholarship, HKUST

2012 Morrison Distinction Price, Queen's College