

# Kenny Chiu

kenny.chiu@stat.ubc.ca  
https://chiukenny.github.io

## Education

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| 2021–Present | <b>The University of British Columbia</b><br>Ph.D. in Statistics<br>Supervisor: <a href="#">Benjamin Bloem-Reddy</a>   |
| 2019–2021    | <b>The University of British Columbia</b><br>M.Sc. in Statistics<br>Thesis: <i>On the Statistical Properties of Entromin as an Orthogonal Rotation Criterion</i><br>Supervisor: <a href="#">Benjamin Bloem-Reddy</a> |
| 2013–2018    | <b>The University of British Columbia</b><br>B.Sc. in Combined Honours Computer Science and Statistics<br>GPA: 94.1%   |

## Research Experience

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| Jul 2022–Present  | <b>Graduate Academic Assistant</b><br>Introductory Statistics Flexible Learning Group, The University of British Columbia <ul style="list-style-type: none"> <li>◦ Investigated the effect of language on statistics exam performance in learners who have English as an additional language</li> <li>◦ Conducted think-aloud sessions to gather student feedback for improving learning resources for Bayesian statistics</li> </ul> |
| Sep 2021–Present  | <b>Graduate Research Assistant</b><br>Department of Statistics, The University of British Columbia<br>Supervisor: <a href="#">Benjamin Bloem-Reddy</a> <ul style="list-style-type: none"> <li>◦ Developing non-parametric hypothesis tests for distributional symmetry with applications to model validation and scientific discovery</li> </ul>  |
| Jan 2020–Aug 2021 | <b>Graduate Research Assistant</b><br>Department of Statistics, The University of British Columbia<br>Supervisor: <a href="#">Benjamin Bloem-Reddy</a> <ul style="list-style-type: none"> <li>◦ Examined the statistical properties of rotation criteria in factor analysis</li> <li>◦ Studied mean/max embedding on posterior uncertainty in neural process models</li> </ul>  |
| May–Aug 2018      | <b>Research Fellow</b><br>Data Science Institute, The University of British Columbia<br>Advisor: <a href="#">Raymond Ng</a><br>Collaborator: BC Centre for Disease Control <ul style="list-style-type: none"> <li>◦ Developed a model for labeling lab results based on text and other attributes</li> </ul>  |
| May–Aug 2016      | <b>Research Assistant (Co-op)</b><br>Department of Mechanical Engineering, The University of British Columbia<br>Advisor: <a href="#">Justin Hart</a> <ul style="list-style-type: none"> <li>◦ Implemented chessboard camera calibration and point cloud merging algorithms</li> </ul>  |

## Teaching & Facilitation Experience

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- Jul 2023–Present **Graduate Student Facilitator**  
 Centre for Teaching, Learning and Technology, The University of British Columbia
- Designing and facilitating Instructional Skills Workshops for graduate students
- Sep 2021–Present **Teaching Assistant Trainer**  
 Department of Statistics, The University of British Columbia
- Preparing onboarding materials and facilitating workshops for new TAs
  - Managing and revising department-wide TA evaluation process
- 2019–Present **Graduate Teaching Assistant**  
 Department of Statistics, The University of British Columbia
- 2023W2: STAT 305 (*Introduction to Statistical Inference*)
  - ☆ 2023W1: STAT 404 (*Design and Analysis of Experiments*)
  - ☆ 2022W2: STAT 305 (*Introduction to Statistical Inference*)
  - ☆ 2022W1: STAT 404 (*Design and Analysis of Experiments*)
  - ☆ 2021W2: STAT 305 (*Introduction to Statistical Inference*)
  - ☆ 2021W1: STAT 404 (*Design and Analysis of Experiments*)
  - ☆ 2020W2: STAT 305 (*Introduction to Statistical Inference*)
  - ☆ 2020W1: STAT 404 (*Design and Analysis of Experiments*)
  - 2019W2: SCIE 300 (*Communicating Science*)
  - 2019W1: STAT 404 (*Design and Analysis of Experiments*)
- Jan 2024 **TA Institute Facilitator**  
 Centre for Teaching, Learning and Technology, The University of British Columbia
- Workshop: *Time Management Skills for Graduate Students and TAs*
- 2017 **Teaching Assistant**  
 Department of Mathematics, The University of British Columbia
- 2017S1: MATH 104 (*Calculus I with Applications to Commerce and Social Sciences*)

☆ indicates Head TA

## Publications & Preprints

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- 2023 K. Chiu, B. Bloem-Reddy. **Non-parametric Hypothesis Tests for Distributional Group Symmetry**. arXiv:2307.15834 [stat.ME]. [arXiv]
- NeurIPS 2023 AI for Science Workshop. [pdf] [poster]
- 2021 K. Chiu. **On the Statistical Properties of Entromin as an Orthogonal Rotation Criterion**. M.Sc. thesis, University of British Columbia. [UBC Library]
- 2020 S. Naderiparizi, K. Chiu, B. Bloem-Reddy, F. Wood. **Uncertainty in Neural Processes**. arXiv:2010.03753 [cs.LG]. [arXiv]
- 2018 S. Chen, K. Chiu, W. Lu, N. Zarei. **Classifying Laboratory Test Results Using Machine Learning**. Data Science Institute, University of British Columbia. [pdf]

## Presentations

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- Mar 2024    **Hypothesis Testing for Distributional Invariance** [\[slides\]](#)  
 UBC-SFU Joint Statistics Seminar
- Nov 2020    **Uncertainty in Neural Processes** [\[slides\]](#)  
 UBC-SFU Joint Statistics Seminar
- Oct 2018    **Classifying Laboratory Test Results Using Machine Learning** [\[poster\]](#)  
 Cascadia Urban Analytics Cooperative

## Awards & Distinctions

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- 2022    UBC British Columbia Graduate Scholarship
- 2022    UBC Statistics Graduate Teaching Assistant Award
- 2014, 2016, 2017, 2018    UBC Science Scholar/Dean's Honour List
- 2017    UBC Dr. John and Barbara Petkau Scholarship
- 2014, 2016, 2017    UBC Trek Excellence Scholarship
- 2014, 2017    UBC Charles and Jane Banks Scholarship
- 2016    NSERC Undergraduate Student Research Award
- 2014    UBC Computer Science Scholarship

## Professional Experience

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- Dec 2019–Dec 2022    **Statistical Consultant**  
 Applied Statistics and Data Science Group, The University of British Columbia
  - Provided statistical help to graduate students and other clients
 Completed consulting projects (only most recent **5** of **33** are listed):
  - Dec 2022: *Implant devices on hip fracture risk in sideways falls*
  - Sep 2022: *Social-cognitive errors and mental health in autistic young adults*
  - Aug 2022: *Scripted interaction on engagement and learning in video-based learners*
  - Aug 2022: *Point of care ultrasound quality on clinical decision-making*
  - Jul 2022: *Biopsychosocial predictors of cardiometabolic multimorbidity*
- Sep 2018–Jan 2022    **Business Intelligence Specialist**  
 Provincial Health Services Authority
  - Developed ETL processes for a data warehouse supporting the *Clinical & Systems Transformation* project spanning 3 British Columbia health authorities
  - Investigated, validated and documented data generating procedures underlying the Cerner healthcare system

May–Aug 2017 **Data Analyst (Co-op)**

UBC IT - Student Academic Systems Initiative

- Profiled the student systems database and summarized findings in dashboards

Sep 2015–Apr 2016 **Platforms Developer (Co-op)**

Safe Software Inc.

- Developed JDBC connections to various database management systems for the spatial ETL software *FME*

## Service

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Feb 2022–Present **Treasurer**

Statistics Graduate Student Association, The University of British Columbia

- Budgeting, bookkeeping and developing policies for SGSA finances

Jan–Apr 2021 **Scientific Program Committee Member**

Canadian Statistics Student Conference [\[2021\]](#)

- Managed abstract submission and evaluation process

Sep 2019–Apr 2021 **Co-organizer**

UBC-SFU Joint Statistics Seminar (2019W1) [\[2019W2\]](#) [\[2020W1\]](#) [\[2020W2\]](#)

- Coordinated with co-organizers on all aspects including planning and funding

## Professional Development

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Jun 2022–Present **Teaching and Facilitation Workshops**

Centre for Teaching, Learning and Technology, The University of British Columbia

- Jun 2023: Facilitator Development Workshop
- Aug 2022: Workshop Facilitation Basics Workshop
- Jun 2022: Instructional Skills Workshop

Jun 2022 **Associate Certificate**

Centre for the Integration of Research, Teaching and Learning