LACHLAN JOHN KERMODE

PROVIDENCE, RI

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Personal website:

Open source contributions and code:

Professional software resume:

Musical and artistic portfolio:

lachlankermode.com/preezykermo
lachlankermode.com/resume
portfolio.lachlankermode.com

EDUCATION

2021-26 PhD in Modern Culture and Media, Brown University

Dissertation committee:

- Joan Copjec (Modern Culture and Media, chair)
- Suresh Venkatasubramanian (Computer Science)
- Holly Case (History)
- Peter Szendy (Comparative Literature)

2022-25 ScM in Computer Science, Brown University

Completed concurrently with PhD as an <u>Open Graduate Education</u> fellow. Systems track with coursework in databases, operating systems, distributed systems and networking. Advised:

• Ugur Cetintemel (Computer Science)

2013-18 AB in Computer Science, Princeton University

Undergraduate thesis "Towards critical computing: a template for animated documentary", advised:

• Arvind Narayanan (Computer Science)

PEER-REVIEWED PUBLICATIONS

[Under review] The cybernetic conjecture – <u>Critical Inquiry</u>, critical thought in the humanities.
[Under review] The machine that therefore I am – <u>October</u>, art criticism and theory.

Detecting tear gas canisters with limited training data – <u>WACV</u>, computer vision.

Objects of violence: synthetic data for practical ML in human rights investigations – <u>NeurIPS</u>, machine learning and computational neuroscience..

PUBLIC-FACING PUBLICATIONS

2025-	Screening the Subject – https://screening-the-subject.ohrg.org .
2024	<u>Is it stupid to think information wants to be free?</u> – <u>IWM Post</u> .
2022	$\underline{Deconstructing\ Urbit: the\ politics\ of\ software\ as\ infrastructure} - (with drawn\ from\ the\ Routledge$
	Handbook of Architecture, Urban Space and Politics).
2020	<u>Detecting tear gas: vision and sound</u> – <u>Forensic Architecture OSS</u> .
2020	<u>Computer vision in Triple Chaser</u> – <u>Forensic Architecture OSS</u> .
2018	<u>Using timemap for cartographic platforms</u> – <u>Forensic Architecture OSS</u> .
2018-	Public blog site – https://ohrg.org.

TEACHING

2025 <u>Capital for Tech Workers</u> – Instructor, Online

A free, online course taught with Erika Bussman (a software engineer at Google). Students were tech workers, those actively engaged in the operational edifice of 'big tech', including engineers from Meta (Facebook), Google, startups, indendent game developers and software researchers. The primiary aim of this course is to consider the extent to which Marx's critique in *Capital* travels to the contemporary context and conundrum of technology companies.

- 2024 Capitalism and Computers in the Era of A.I. Instructor, Modern Culture and Media
 Taught as a 3-hour seminar for upper-level undergraduates in Modern Culture and Media and
 Computer Science. The first half of the course builds an understanding of important concepts
 in the history of the computer and Marx's critique of political economy. The second half of the
 course examines texts that critically assess the state of the relationship between society and
 the computer.
- 2022–23 <u>Computer Science for Social Change</u> Instructor, Computer Science

Taught twice in 2022 and 2023. Students are placed in small groups to investigate a non-profit partnering organization's needs and to constructively contribute to their mission with software over the course of the semester. In addition to project work, students reflect on the ethics of software and socially impactful work through weekly readings and group discussions.

- 2023 <u>Database Management Systems</u> Teaching Assistant, Computer Science
- 2022-23 Theories of Modern Culture and Media Head Teaching Assistant, Modern Culture and Media
- 2022 <u>Digital Media</u> Teaching Assistant, Modern Culture and Media
- 2022 <u>Socially Responsible Computing</u> *Instructor, Computer Science*

1-week intensive for new Undergraduate Teaching Assistants in the Department of Computer Science.

ACADEMIC FELLOWSHIPS

2026 **ZRC SAZU Institute of Philosophy** – Visiting Research Fellow

1-month fellowship presenting work in Ljubljana. Project title: *From one to zero: capital, computers and the critique of calculus.*

2024 <u>Institute for Human Sciences</u> – <u>Digital Humanism Junior Fellow</u>

3-month fellowship at the institute in Vienna. Project title: Computer Science, cybernetics and the philosophy of error: the humanist critique of capitalism in an age of artificial intelligence.

- 2019–20 **Department of Architecture University of Auckland** *Visiting Research Fellow* Conceptualising and undertaking an investigation to recenter Muslim and Māori communities in Aotearoa New Zealand by documenting how a racialised figuration of 'the terrorist' persists in the wake of the Christchurch mosque shootings in March 2019. In partnership with Forensic Architecture.
- 2015–16 **Paideia Institute** Digital Humanities Fellow

After an internship developing an iOS application in 2015, became the inaugural Digital Humanities Fellow, taking a year off from Princeton to head digital operations from the office in Rome. After the fellowship's completion, sat on the institute's advisory board until 2020.

2017 **Princeton PIIRS** – Undergraduate Research Fellow

3-month fellowship to research contemporary media and surviellance art towards my undergraduate thesis, "Towards critical computing: a template for animated documentary".

PROFESSIONAL EXPERIENCE

2024- **LIMINAL** – Lead Software Researcher

Engineering software for human rights investigations regarding pushbacks on the Central Mediterranean, remote assistance in Northern Africa and data protection in the United Kingdom. Leading open source initiative to develop free software tools for investigations building from the <u>timemap</u> community.

2018 - Forensic Architecture - Advanced Software Researcher | Research Fellow

Directed engineering for full stack platforms and machine learning workflows. Contributed to more than 20 investigations and exhibitions through software development and analysis (see my person page for more information). Steered data management committee for digital security, initiated and led the Open Source Software subdomain.

2022-23 Department of Computer Science - Brown University - Research Assistant

Developing and systematizing ethics curriculum for Brown undergraduate Computer Science program with Julia Netter (Philosophy) in 2022. Auto-scaling mechanisms in Apache Flink and Kubernetes using Reinforcement Learning advised by Ugur Cetintemel (Computer Science) in 2023.

2021–22 Halter – Senior Software Engineer

First and specialist machine learning engineer, architected and built a feature store to compute real-time uplinks from IoT devices using Apache Flink. Contributed to microservices in Java, Node and Python using SNS/SQS, DynamoDB, Postgres, Terraform and Concourse CI.

- 2021–22 **Social Media Analysis Toolkit [SMAT]** *Volunteer Research Engineer*Full stack development and MLOPs engineering for the SMAT website and associated tooling.
- 2020–21 The Syllabus Developer

Designed and developed the frontend for two websites in Vue: <u>the-syllabus.com</u> and <u>cabinet.the-syllabus.com</u> (by subscription only). User-based authentication, account management (reset and deletion), payment via Stripe, and a page-display algorithm to simulate A4 pages on the web.

2019–21 Merantix – Full stack engineer

Develop tooling for deep learning workflows on a part time basis for Merantix ventures. Working mainly in Python and the Jupyter notebook stack to augment tooling in industry DL. Technologies include Kubernetes, GCP, Tensorflow, Jupyter notebooks, Svelte, Vue, and React.

CONFERENCE OR INVITED PAPERS

- 2025 The machine that therefore I am <u>Historical Materialism</u>.
- Is there a theory of the subject in Marx? LACK V.
- 2024 <u>Capital and the computer TU Wien Digital Humanism Initiative</u>.
- 2024 Love's first site <u>IWM Spring Fellows Conference</u>.
- 2023 The automatic subject <u>American Academy in Berlin</u>.
- 2023 Men dressed as ghosts <u>MCM</u> Graduate Colloquium.
- 2022 Political economies of the cloud <u>GRiSTS 2022</u>.
- 2022 <u>3-D in public</u> <u>Toronto Geometry Colloquium</u>.
- 2021 Slow Boil 'Relations' seminar Artspace Aotearoa.
- 2021 Augmented Authorship <u>Lucerne University of Applied Sciences</u>.
- 2020 Deep learning intro <u>Neural Media: a Cultural History of Machine Learning</u>, Brown University.
- 2019 AI and Human Rights Sigrid Rausing Trust.
- 2019 Citizen Forensics workshop <u>School of Machines</u>.
- 2019 Spatial Research Practice Roundtable <u>Flaneur Festival</u> at <u>HKW</u>.
- 2019 Machine Learning in Forensic Investigations United Nations / <u>ATI</u> conference.
- 2019 Machine Learning and Synthetic Data Goldsmiths University.
- 2019 Programming for open-source architects <u>Architectural Association</u>.

2019	On Algorithmic Vision – <u>Birkbeck's Critical Theory Summer School</u> .
2019	Computer Visions – <u>Princeton-Weimar Summer School</u> .
2019	Using Synthetic Data – <u>ElementAI</u> .
2018	Machine Learning in Counter Forensics – <u>Princeton University</u> .
2018	<u>Lessons in Counter Forensics: Interpretation</u> – Turner Prize seminars at <u>Tate Britain</u> .

EXHIBITIONS

2024 <u>Centiquatre Paris</u> – <u>From Sea to Sky</u>

In partnership with <u>LIMINAL</u>, exposes the aggressive methods of surveillance operations in the Mediterranean where more than 40,000 migrants have lost their lives at sea. Contributed to the design and development of a physical installation contextualizing redacted information from Frontex, the European Border and Coast Guard Agency. Select reviews:

• Fisheye Immersive

2023-24 Harvard Collection of Scientific Instruments - Surveillance: From Vision to Data

Considers surveillance beyond the realm of cameras and their watchers, exposing the profound influence of data. Contributed an original video on loop that introduced <u>mtriage</u>, a software I developed to scrape public domain data.

2021–22 <u>Tauranga Art Gallery</u> – <u>The Moral Drift</u>

In collaboration with Fraser Crichton and Malcolm Richards, this exhibition offers a partial history of Aotearoa's state care system, uncovering a legacy of abuse and the resiliency of the survivors who continue to seek justice today.

2021 <u>Artspace Aotearoa</u> – <u>Slow Boil</u>

In collaboration with kaupapa Māori community group and kai security advocates Boil Up Crew, as well as a group of contributing practitioners spanning architecture, community advocacy, design, food sovereignty, software and the visual arts. Explored the relationship between the mahi ngā-kai/kai rituals, and tā wahi/notions of space, mana motuhake/sovereignty, and mapping. Works were collectively produced and installed over the course of the exhibition, alongside existing investigative works by Forensic Architecture. Select reviews:

- Architecture Now
- <u>e-flux</u>

2020–21 ZKM | Karlsruhe - Critical Zones: Observations for Earthly Politics

Dedicated to the critical situation of this fragile membrane of life. Contributed with a project on the toxic clouds that are mobilised by state and corporate powers such as tear gas, herbicide and chlorine bombs.

2020 Adam Art Gallery - Violent Legalities

Cartographically chronologises three separate projects, each aiming to spatialise relationships between legislative activity and occurrences of violence to inspect enduring trends between settler-colonial law-making processes and state policies in Aotearoa/New Zealand. Nominated to be showcased in the 2020 Ars Electronica showcase in Aotearoa New Zealand. Select reviews:

- Scoop News
- Architecture Now

2020 De Young Museum - Model Zoo in Uncanny Valley: Being human in the age of AI

Presented the research in computer vision and synthetic data from my work in investigations at Forensic Architecture. Accompanying technical details are available at <u>forensic-architecture.org/investigation/detecting-tear-gas</u>. Select reviews:

- Frieze
- Artfix Daily

2019 Whitney Museum of American Art - Triple Chaser in Whitney Biennial 2019

Forensic Architecture's invited contribution with filmmaker Laura Poitras and Praxis Films presenting machine learning research I conducted in Forensic Architecture investigations. Accompanying technical details are available at forensic-architecture.org/investigation/cv-in-triple-chaser. Select reviews:

- <u>T.J. Demos in e-flux</u>.
- New Yorker.
- Hyperallergic.

2018 <u>Tate Britain</u> - <u>The Long Duration of a Split Second</u> in <u>Turner Prize nomination 2018</u>

An exhibition produced for Forensic Architecture's nomination for the 2018 Turner Prize Developed an interactive platform displaying more than 30Gb of point clouds and other citizen-mapped data in the Negev/Naqab desert. Select reviews:

- Haaretz
- The Times
- The Guardian
- The New York Times

2019 <u>Fridman Gallery</u> – <u>Talking Popcorn's First Last Words</u> with <u>Nina Katchadourian</u>

I was one of sixteen people interviewed from a wide variety of fields and areas of expertise, asked to address Talking Popcorn's last words from a particular disciplinary perspective. The soundtrack played in a room with the burned, damaged carcass of the first machine standing on a black plinth upon which was written the machine's final pronouncement.

SELECTED SOFTWARE CONTRIBUTIONS

- 2025 <u>Typst open source contributions</u> Adding HTML export features and fixes.
- 2023 <u>Antarctic Resolution</u> Interactive platform developed in partnership with <u>Inferstudio</u>.
- 2019 <u>Timemap</u> Open source standalone frontend application, 350+ Github stars.
- 2020 <u>Mtriage</u> Open source tool to download and transform media, 100+ Github stars.
- 2020 <u>Brutality at BLM Protests</u> Investigative <u>timemap</u> deployment documenting instances of police brutality throughout the 2020 protests..
- 2019 <u>The Battle of Ilovaisk</u> Investigative <u>timemap</u> deployment documenting Russian military presence in Eastern Ukraine in 2014.
- 2018 <u>Triple Chaser</u> Investigative <u>mtriage</u> deployment documenting tear gas use by Safariland, a company associated with ex-Whitney board member Warren B. Kanders.

SERVICE

- 2024 Organizer Maths, Philosophy and History reading group, <u>Cogut Institute</u>.
 - Bi-weekly online. Past guests include <u>Imogen Forbes-Macphail</u> and <u>Leif Weatherby</u>.
- Conference organizer *The geopolitics of software at scale*, Cogut Humanities Lab. 6 faculty invited from the U.S. and Canada for 2 days of discussion..
- 2025 Program committee <u>Information+</u>, a conference for information design and visualization.
- 2024–25 Technical advisor <u>AI, Decoloniality and Creative Poetry Translation</u> at Oxford University Research using AI tools for low-resource and poetic translation run by <u>Matthew Reynolds</u>.
- 2024 Research Assistant <u>Lindsay Caplan</u>, Department of Art History, Brown University.
- 2023 Conference organizer <u>Modern Culture and Media</u> Graduate Colloquium.
- 2022–23 Department representative <u>GSC</u> representative for Modern Culture and Media.
- 2022–23 Graduate Representative Committee for the SRC program expansion, Brown University.
- 2022 Organizer <u>Critical Computing Speaker Series</u>, Modern Culture and Media / Computer Science.
- 2021–23 Graduate Advisor <u>Socially Responsible Computing Initiative</u> Brown University. Advised undergradute students in the <u>STA program</u>.
- 2016–19 Advisory Board <u>Paideia Institute for Humanistic Study</u>.

WORKSHOPS AND GROUPS

- $2024-25 \quad \underline{RISD\ Center\ for\ Complexity}\ Systems\ thinking\ from\ the\ margins-with\ \underline{Jon\ Soske}, \underline{Tim\ Maly}\ et\ al.$
- 2025 <u>PLISS</u> summer school with <u>Jan Vitek</u>, <u>Shriram Krishnamurthi</u>, <u>Ben Titzer</u> et al.
- 2022-24 AI faculty reading group with Eli Upfal, Lindsay Caplan et al.
- 2023 <u>BICAR</u> Summer Intensive, 4-week intensive with <u>Rohit Goel</u> et al.
- 2022 Simultaneity Sommerfrische, 1-week retreat in Poland with Holly Case et al.
- 2021-22 ARGNOTES reading group Department of Computer Science, Brown University.
- 2021–23 A.R.G. Critical Reading Group Goldsmiths University.

RECOGNITION AND PRESS

- $2025 \qquad \qquad GCB\ /\ Narangan sett\ Travel\ Grant\ -\ Grad\ Center\ Bar\ /\ Narangan sett\ Brewery.$
- 2023-25 Joukowsky Summer Research Award, (awarded 2 times) Brown University.
- 2022-25 International Travel Fund Award, (awarded 3 times) Brown University.
- 2022-25 Forbes Fund Travel Award, (awarded 5 times) Brown University.
- 2022-25 Graduate School Travel Award (awarded 3 times) Brown University.
- 2024 <u>Cycling typing</u> (front page post, #8) Hacker News.
- 2021 <u>Interview with Anthony Brand</u> Interstices magazine.
- 2021 <u>Software Reconnaissance: an interview with Lucas Gelfond</u> The Indy magazine.
- For developing the "practice and theory of open-source software research" at Forensic
 - Architecture *Investigative Aesthetics* by Matthew Fuller and Eyal Weizman.
- 2020 <u>Signs and use of past presences</u> Architecture Now.
- 2018 Top 5 (of 125+) 'Hive' <u>HackZurich 2018</u>.
- 2017 Top 25 (of 125+) 'Midnight Grain to Georgia' HackZurich 2017.
- 2015 1st Place 'ClaireCutApp' Burda Hackday, Munich.
- 2015 Dropbox API Prize 'Stitch' <u>HackZurich 2015</u>.
- 2015 1st Place 'Pocketbadge' Bic Lazio Talenttime Hackathon, Rome.

LANGUAGES

- 1994 English mothertongue.
- 2016– Italian proficient for speaking, writing and reading.
- 2008– Latin studied for 5 years, proficient for reading.
- 2024 German basic reading and comprehension, introductory speaking and writing.