Rickard Stureborg

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EDUCATION

Duke University   **North Carolina, USA**
PhD in Computer Science   Expected *May 2025*
  Research Area: Vaccine Misinformation, Natural Language Processing

Duke University
MS in Computer Science   Expected *May 2023*
  Courses: Artificial Intelligence, Machine Learning, Algorithmic Design and Analysis, Probabilistic Machine Learning, Adversarial Machine Learning, Natural Language Processing, Advanced Natural Language Processing, Operating Systems
  GPA: 3.61

Northeastern University   **Boston, USA**
BS in Computer Engineering, Minor in Mathematics   *May 2020*
  Graduate courses: Machine Learning & Pattern Recognition, Natural Language Processing, Data Visualization
  GPA: Major 3.92, Cumulative 3.86 (*Summa Cum Laude*)
  Awards: Huntington 100, PEAK Research Fellow, Honors Scholarship, Dean's List (all semesters)
  • Graduated in 3 years from a 5-year university

WORK EXPERIENCE

Datalab Research Group   **Boston, USA**
Data Engineer   *Jun 2019 – Jan '20*
  • Independently led a research project on table union search and the schema inference problem for open data.
  • Proposed a research project for investigating summary statistics of hidden state representations, motivated by proof-of-concept analysis of computer vision data and the color spectrum
  • Implemented LSH-Ensemble database algorithm into GUI for use by non-technical journalists / data scientists
  • Supported Postdocs and PhD candidates in the lab with various research tasks under time pressure
  • Read and presented research papers to the group regarding ML algorithms for database schema repair

Student Value Fund   **Boston, USA**
Voting Member, Analyst   *Sep 2018 – Dec '19*
  • Pitched equities for the fund's ~$215,000 AUM according to a long-term, value-only strategy
  • Interacted directly with C-level management of companies for guidance in model building
  • Built pipeline for brand-loyalty investigation, analyzing millions of social media comments
  • Built several DCF models, Performed multiples analyses

LiveStories Inc.   **Seattle, USA**
Data Science Intern   *Jun – Aug 2018*
  • Researched demographics and crime using several ML models for use in product developed by the startup
  • Built ML pipeline to predict changes in crime hotspots for a given city, integrated with startup's database
  • Scraped and collected financial data (under high time pressure) for a data portal developed for a client
  • Improved accuracy by 3.6 percentage points through hyper-parameter tuning
  • Achieved 92% precision and 88% recall in predicting crime hotspots using gradient boosting

Buana Capital Equities   **Jakarta, Indonesia**
Research Analyst Intern   *Summers 2016, '17*
  • Co-wrote the company's bi-annual Strategy Report
  • Authored weekly macroeconomic reports sent to all clients
  • Covered the Brexit referendum and its impact on South-East Asian Markets

Come Let's Dance (NGO)   **Kampala, Uganda**
Project Lead | Medical Outreach   *Oct 2015, '16*
- Supervised a team of 18 to carry out temporary medical clinics in rural and urban settings, serving 400+ persons
- Communicated with donors and sought donations of medicines and medical supplies
- Planned and managed temporary clinic operations, considering recommendations of doctors and nurses

Nightlife Events Planning   **Jakarta, Indonesia**
Principal Investor and Chief of Operations   *Sep 2016 – May '17*
- Organized live ticket-based events with hundreds to thousands of participants at night clubs
- Secured funding through co-investors, shifted business to a cash-light model, and turned profit in one month
- Collected approx. $20,000 USD in revenue per event, with an average 36% gross profit margin

LEADERSHIP POSITIONS

Young Trustee Selection Committee   **Durham, USA**
Board Member   *Dec 2022 – present*
- Search for and select a student for a seat at the Duke Board of Trustees

DACC: Duke Advanced-degree Consulting Club   **Durham, USA**
Co-President   *Aug '21 - present*
- Grew pro-bono services from ~4 clients per year (~20 consultants) to 24 clients (120+ consultants)
- Increased the club scope from 2 to 4 independent initiatives through a complete organizational restructuring into SBUs and expansion of the executive board
- Rebranding campaign and complete restructuring of organization into strategic business units
- Created internal resources and tooling to
- Grew case competition arms

Project Lead   *Jan 2020 – May 2020*
- Directly managing a consulting team of 4 to construct a user-growth strategy for a social media company
- Conduct customer needs research through interviews, medium scale surveys, and focus groups

Graduate and Professional Student Government   **Durham, USA**
Computer Science Department Rep. | Doctoral-student Affairs Committee   *Sep 2020 – present*
- Voting member for issues relevant to the graduate student body, budgetary changes, bylaws
- Negotiated agreement with CFOs of the 7 schools at Duke for 15% increase in PhD stipends
- Sat on the Doctoral-student Affairs Committee

Hiring Committees, Duke University   **Durham, USA**
Board Member | for hiring the following positions:
- Associate Dean of Graduate Student Affairs   *Jun 2022*
- Assistant Director of Career Center   *May 2022*
- Graduate Program Coordinator of Computer Science   *Jun 2021*

Title IX Office, Northeastern U.   **Boston, USA**
Board Chair | Student Conduct Board   *Jan 2019 – May '20*
- Chaired cases of misconduct (e.g., sexual assault, stalking) related to Title IX investigations
- Decided on responsibility and appropriate sanctions according to investigative reports and official hearing statements, deliberated with members on the board
- Deliberated with board to reach require unanimous consent according to investigative reports and official hearing statements

College of Engineering Advisory Board   **Boston, USA**
Student Representative   *Feb 2018 – Oct '19*
- Advocated for policy and curriculum changes in the electrical and computer engineering department

SAIL Initiative (Student Assessed Integrated Learning)   **Boston, USA**
Advisory Board Member   *Oct 2017 – May '18*
  • Advised SAIL leadership on integration with their technology initiative aimed to better measure learning

Living Community Council   **Boston, USA**
Council Member   *Sep 2017 – April '18*
  • Organized events around Boston to engage and connect a 55-person community

Roshan - Iranian and Afghani Refugee Educational Center   **Jakarta, Indonesia**
Volunteer Organizer   *Feb 2016 – May '17*
  • Recruited and led volunteers to teach English to refugee children ages 5-14
  • Budgeted, planned, and operated field trips and weekend activities for the school children

INTERNATIONAL TRAINING

Israel-Palestine & International Conflict Training   **Israel & Palestine**
Interviewer | Investigative Trip   *Mar 2020*
  • Discussed Palestinian perspectives with the spokesperson of the PA and president of Fatah
  • Visited and interviewed Israeli citizens in settlements in the West Bank (areas A, B, and C)
  • Interviewed several domain experts (law, history, religion, military) regarding the ongoing conflict

Universidad de Santiago   **Santiago, Chile**
Study Abroad   *Jun 2018*
  • Intensive, project-based course in Biomedical Imaging and Signal Processing
  • Immersive course in Chilean history, culture, and traditions

Engineers without Borders   **Lwengo, Uganda (remote)**
Electrical Team & PMEL Team | Uganda Water Program   *Sep 2017 – May '18*
  • Led process of finding sponsorship in-country through locally invested NGOs
  • Assessed and updated current electrical system for water pump
  • Updated AutoCAD designs of implemented valve vaults from water distribution system
  • Worked with translators to design surveys and interviews for post-implementation PMEL

Wine to Water (NGO)   **El Higüerito, Dominican Republic**
Trainee | Sustainable Water Purification   *Mar 2018*
  • Manufactured water filters and processed a year's worth of necessary materials
  • Prepared presentations for communities in water and sanitation hygiene (WASH)

Global Issues Network Conference   **Bali, Indonesia**
Workshop Presenter and Attendee | Environmental Conservation   *Mar 2016*
  • Led a workshop on *Volunteer Service Trips without the Tourism*, focused on turning volunteer trips into
    training opportunities for young students to benefit domestic community service programs.

Education Systems, Culture Exchange   **China**
Participant   *Feb 2013*
  • Engaged students in Xi'an, Guanzho, and Beijing regarding their educational system across all ages
  • Engaged in dialogues with students and teachers from diverse set of schools within the country: from
    Olympic Preparation Schools to Kindergartens to Public High Schools

MISCELLANEOUS JOBS

Event Temps Catering - *Bartender*	*Jan - Sep 2019*	**Boston, USA**
Northeastern University - *Research Assistant*	*Jan – Jun 2019*	**Boston, USA**
Disability Resource Office, Northeastern U. - *Note-taker*	*Jan 2018 – May '19*	**Boston, USA**

OTHER VOLUNTEERING

COVID Vaccination Clinic	*Feb – Mar 2021*	**Durham, USA**
Community Servings Soup Kitchen	*Feb 2018 – Oct '19*	**Boston, USA**
Habitat for Humanity	*Jan – Apr 2016*	**Jakarta, Indonesia**

SKILLS

Programming Languages: Python, SQL, C/C++, MATLAB, Verilog
Software/Applications: Excel, SolidWorks, Simulink, PSpice, SPSS, Bloomberg Terminal
Foreign languages: *Fluent in* Swedish, English   *Proficient in* Indonesian, Spanish

PUBLICATIONS

VaxConcerns: a better taxonomy for vaccine concerns
Rickard Stureborg, Bhuwan Dhingra, Jun Yang, Lavanya Vasudevan
In Preparation.

Exploring the effect of frequency resolution in FNet
Gregory Szumel, Ghazal Khalighinejad, **Rickard Stureborg**, Samuel Wiseman
Under Review.

Learning the Legibility of Visual Text Perturbations
Dev Seth, **Rickard Stureborg**, Danish Pruthi, Bhuwan Dhingra
Under Review.

Interface Design for Crowdsourcing Hierarchical Multi-Label Text Annotations
Rickard Stureborg, Bhuwan Dhingra, Jun Yang
CHI 2023.

Method for measurement of collagen monomer orientation in fluorescence microscopy
Rodrigo Alzola, Jose Delpiano, Anuj Gajjar, **Rickard Stureborg**, Seyed Mohammad Siadat, Jeffrey W. Ruberti
Charles A. DiMarzio
SPIE, 2021

Integrating machine learning with MATLAB and simulink in an introductory robotics class
Julius Marpaung, **Rickard Stureborg**, John K Kimani
ASEE-NE, 2020
(3rd place in Best Faculty / Professional Papers Category)

Artificial Neural Networks for Total Beginners
Rickard Stureborg
Towards Data Science, 2019

Conv Nets for dummies: an intuitive approach
Rickard Stureborg
Towards Data Science, 2019

TEACHING

Database Systems	*Aug – Dec 2021*

Class size: 316 students
- Built the class project template, grading sheets, timelines, etc from scratch (still in use each year)
- Held 3 hours of office hours each week with attendance of ~15-40 students

Technical and Social Analysis of Information and the Internet	*Jan – May 2021*

Class size: 297 students
- Held office hours and generated grading criteria

MENTORING

Dev Seth (Undergraduate, full-time)	20 months, 2022
Aakash Kothapally (Undergraduate, full-time)	9 months, 2021
Lei Guo (MS)	18 months, 2022
Harish Yerra (Undergraduate)	3 months, 2021
Anni Chen (Undergraduate)	4 months, 2021
James Liao (Undergraduate, full-time)	3 months, 2021
Isabella Mellody (Undergraduate, full-time)	3 months, 2021
Qianqian Che (MS)	10 months, 2021
Dongfan Zhang (MS)	10 months, 2021
Qingying Luo (MS)	10 months, 2021
Josh Geden (Undergraduate)	1 month, 2021