
AI and the Rights of Autistic people

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Autscap



- AI advocacy in Europe: training materials
 - Literature review: what do researchers want?
 - Survey: what do autistic people want?

European
Artificial Intelligence
& Society Fund

Khiah Strachan



Imke Heuer



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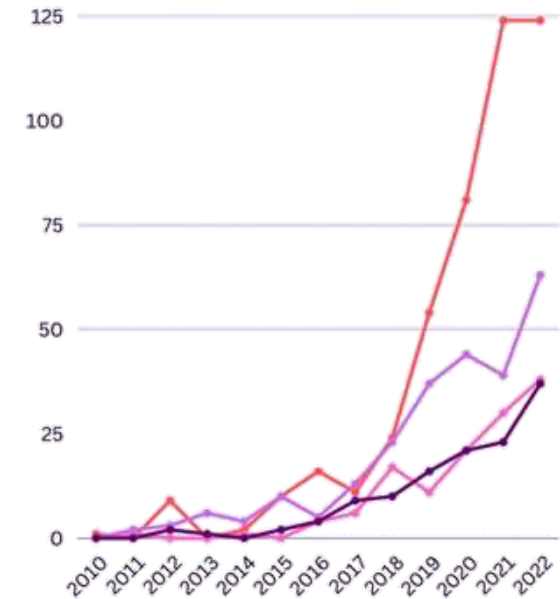
The results so far: literature review

- AI-based approaches to autism
 - 1070 articles in total
- Neural networks!



GROUP LIBRARIES

- Diagnosis
- Interventions
- Biomedicine
- Other



DATA

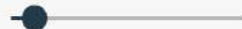
Which dataset do you want to use?



Ratio of training to test data: 50%



Noise: 5



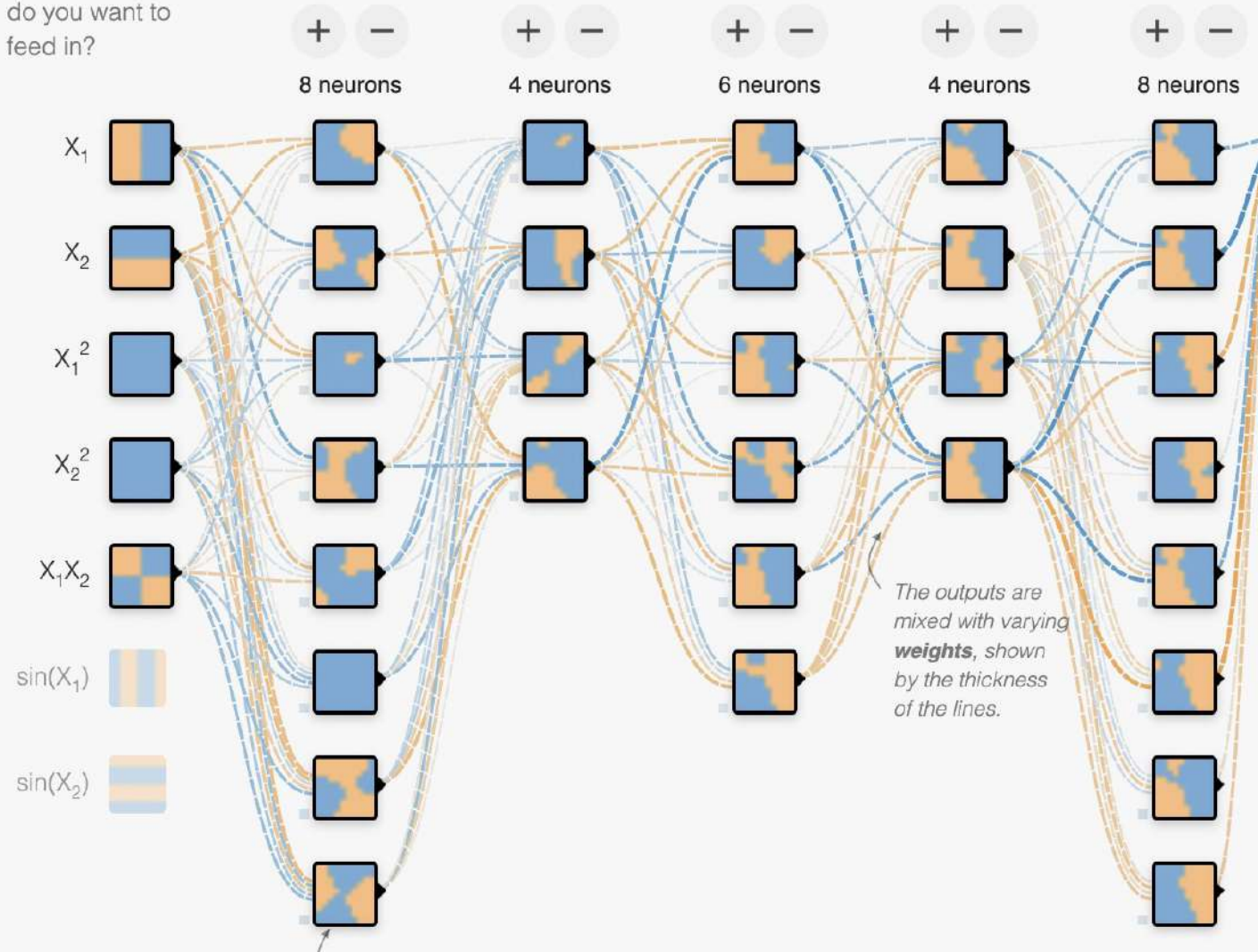
Batch size: 30



REGENERATE

FEATURES

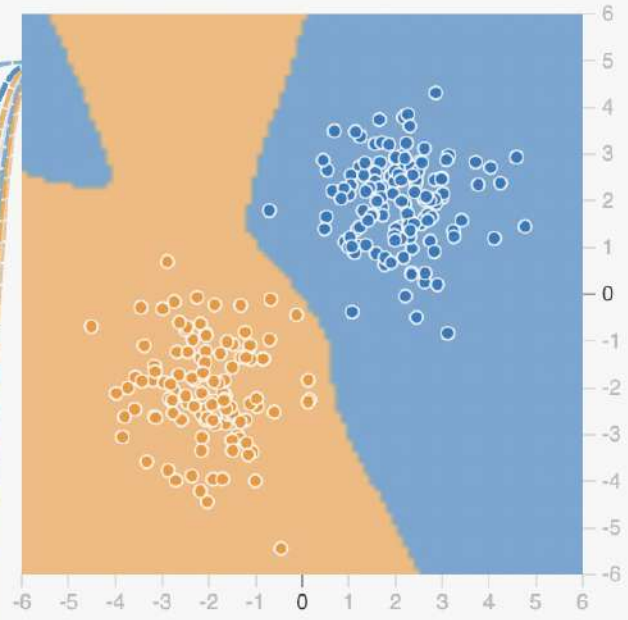
Which properties do you want to feed in?



+ - 5 HIDDEN LAYERS

OUTPUT

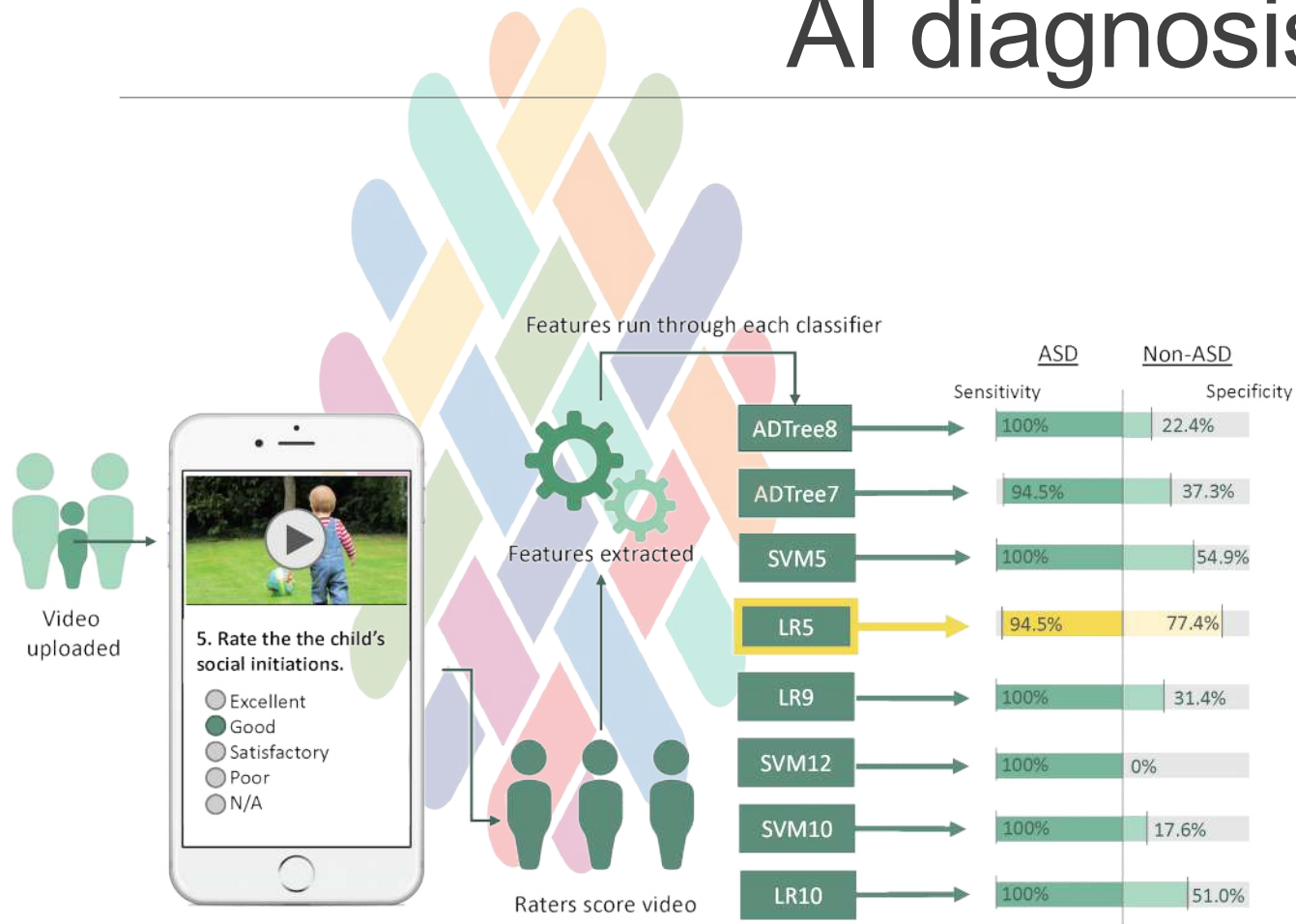
Test loss 0.001
Training loss 0.001



Colors shows data, neuron and weight values.

Show test data Discretize output

AI diagnosis and interventions



RESEARCH ARTICLE

Mobile detection of autism through machine learning on home video: A development and prospective validation study

Qandeel Tariq^{1,2}, **Jena Daniels**^{1,2}, **Jessey Nicole Schwartz**^{1,2}, **Peter Washington**^{1,2}, **Haik Kalantarian**^{1,2}, **Dennis Paul Wall**^{1,2*}



A. Mobile Video Rater Platform

B. Classifiers

C. Autism Risk Classification

AI diagnosis and interventions

Learning Visual Attention to Identify People with Autism Spectrum Disorder

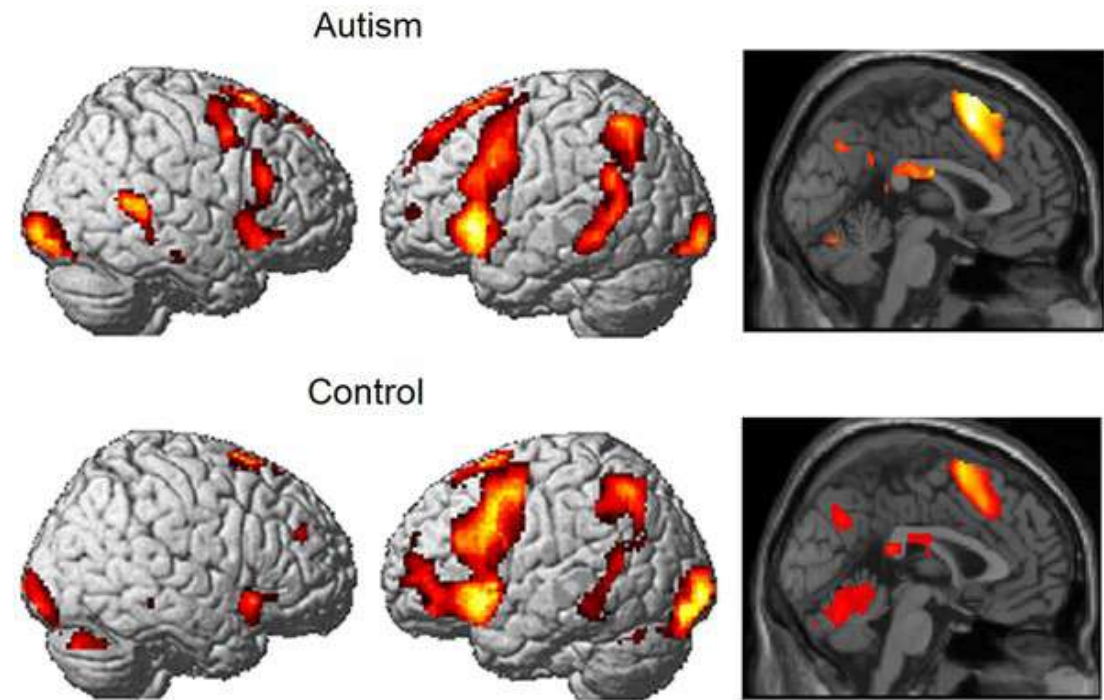


AI diagnosis and interventions

RESEARCH ARTICLE

Identifying Autism from Neural Representations of Social Interactions: Neurocognitive Markers of Autism

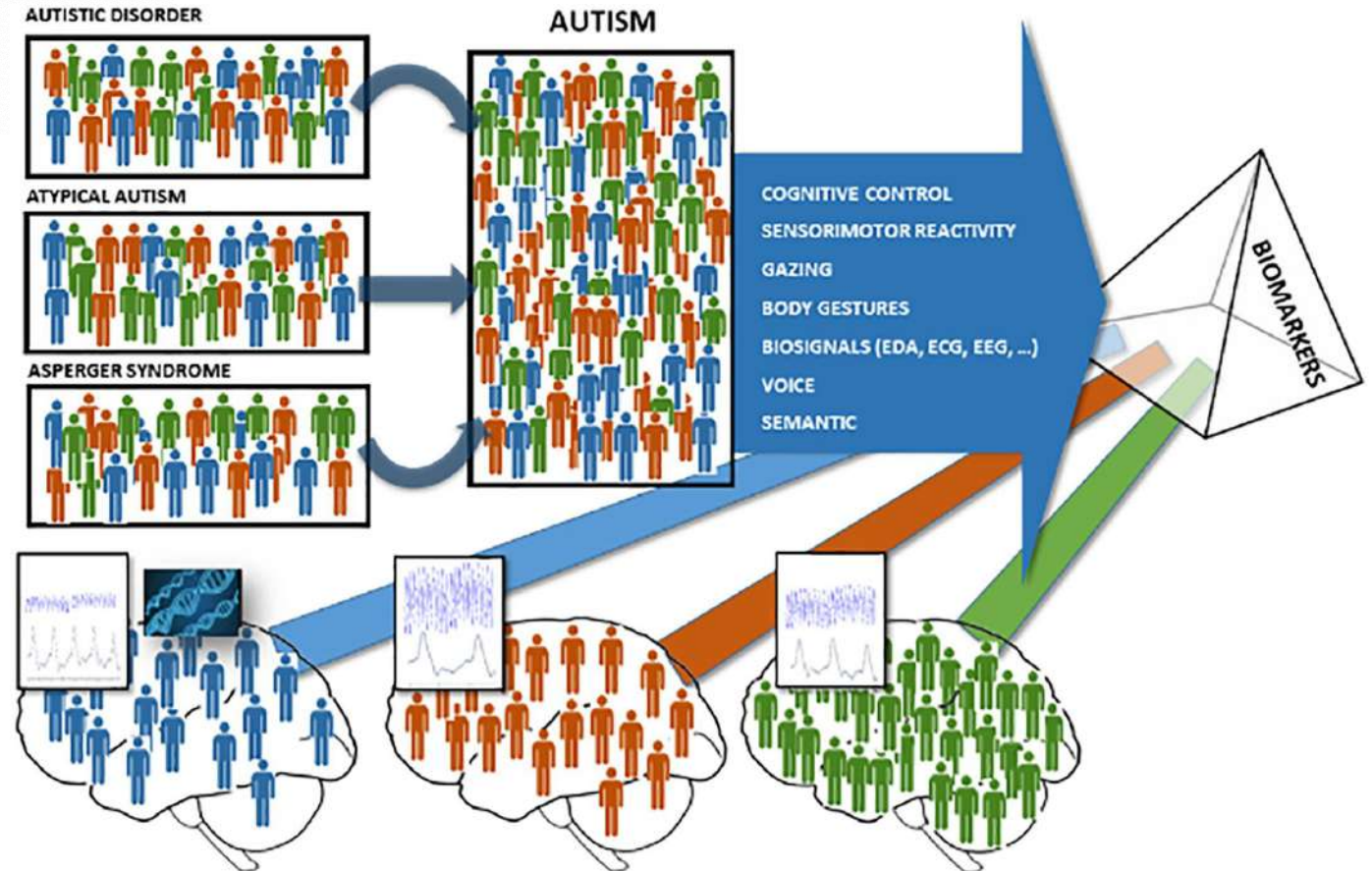
Marcel Adam Just^{1*}, Vladimir L. Cherkassky¹, Augusto Buchweitz^{1,3}, Timothy A. Keller¹, Tom M. Mitchell²



Application of Supervised Machine Learning for Behavioral Biomarkers of Autism Spectrum Disorder Based on Electrodermal Activity and Virtual Reality

AI biomedicine

- Mariano Alcañiz Raya^{1*} Irene Alice Chicchi Giglioli¹ Javier Marin-Morales¹
Juan L. Higuera-Trujillo¹ Elena Olmos¹ Maria E. Minissi¹
Gonzalo Teruel Garcia¹ Marian Sirera² Luis Abad²



RESEARCH ARTICLE

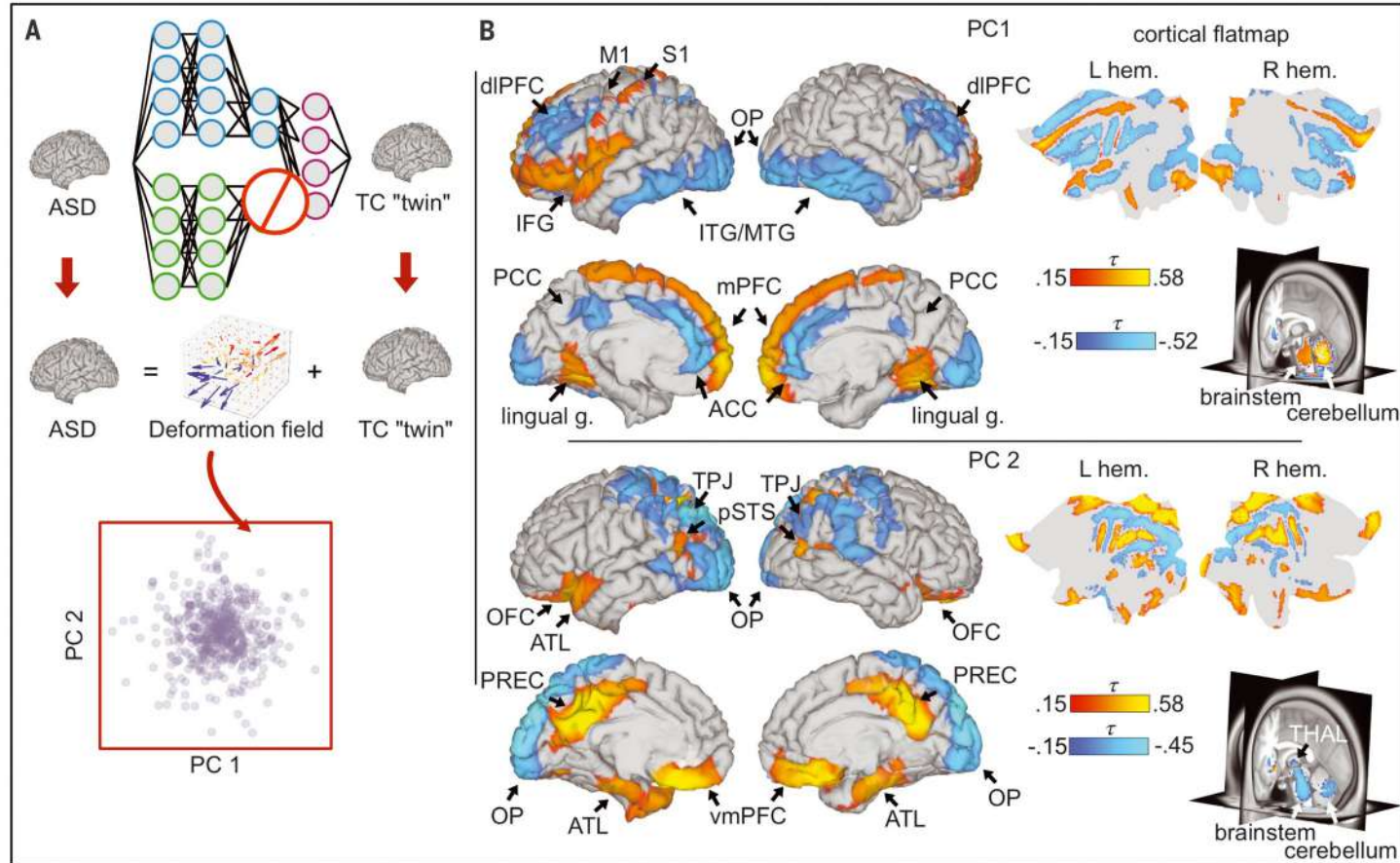
NEURODEVELOPMENT

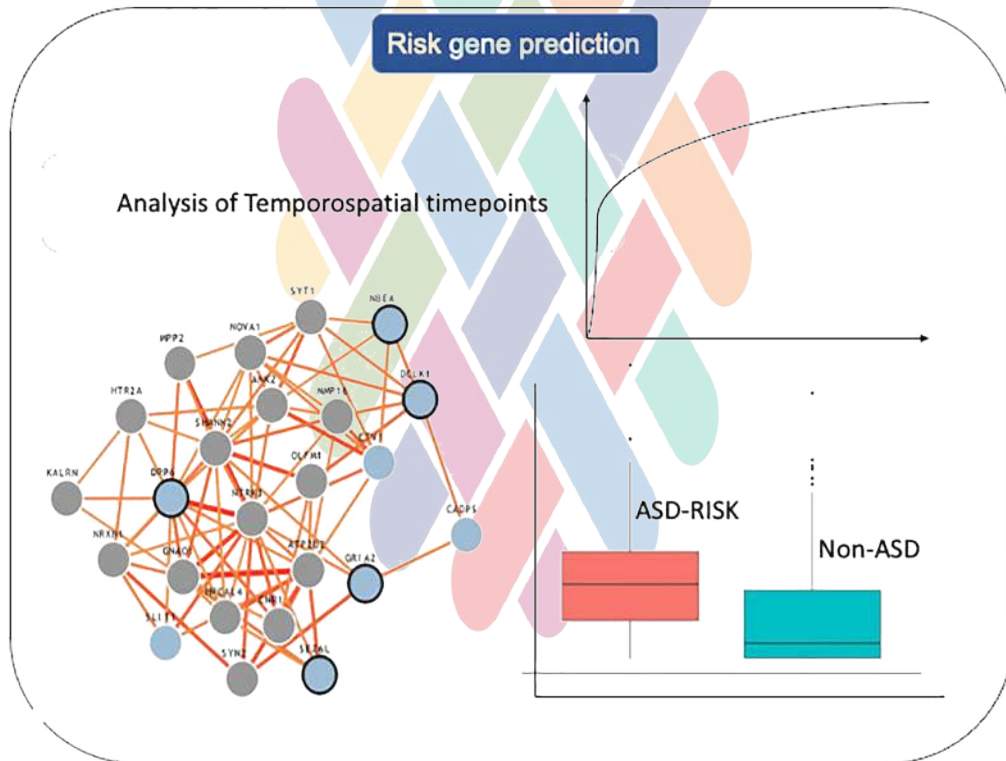
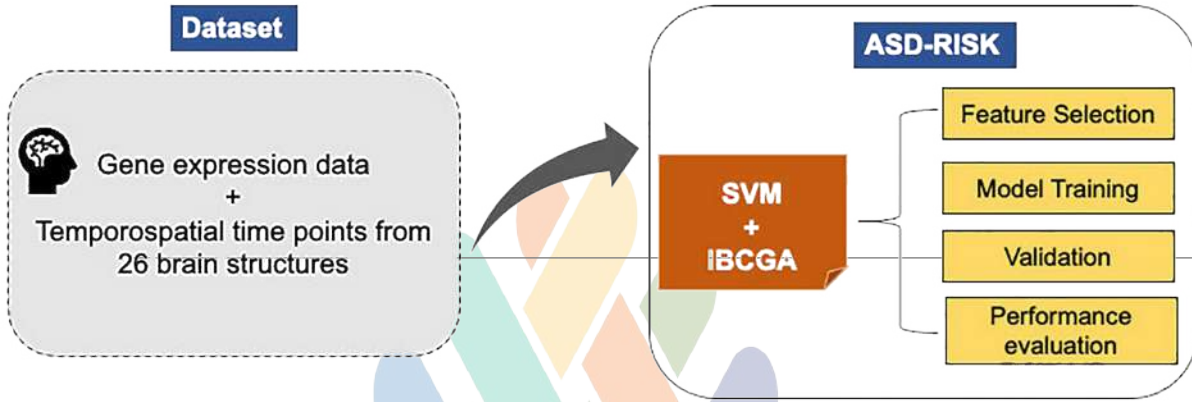
Contrastive machine learning reveals the structure of neuroanatomical variation within autism

Aidas Aglinskas*, Joshua K. Hartshorne, Stefano Anzellotti

AI biomedicine

Neuroanatomical variability in ASD





AI biomedicine

ORIGINAL RESEARCH article

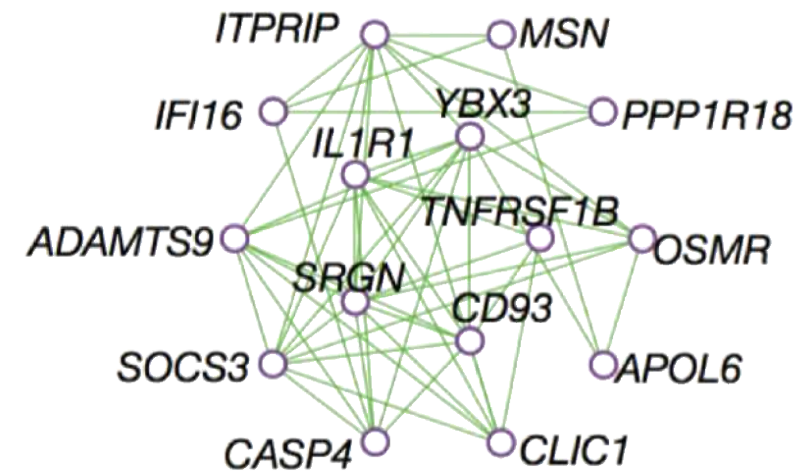
Front. Genet., 14 June 2021

Sec. Computational Genomics

Volume 12 - 2021 | <https://doi.org/10.3389/fgene.2021.665469>

Predicting the Risk Genes of Autism Spectrum Disorders

Yenching Lin^{1†} Srinivasulu Yerukala Sathipati^{2,3,4†} Shinn-Ying Ho^{1,3,5,6,7*}



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- 
- Pilot survey
 - AI advocacy training materials
 - Link with broader disability community



Artificial Intelligence and the Rights of Autistic people

The following questions will ask you about your attitudes and experiences with artificial intelligence. There are no right or wrong answers and you are free to leave any question unanswered without repercussions.

AI scoops



Links and contact information

EUCAP website:

<https://eucap.eu>

Queries about this presentation:

<https://eucap.eu/aira>

aira@eucap.eu

Pilot survey

