

OMRAN K. SAFI

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EDUCATION

Bachelor of Arts in Psychology

University of British Columbia
Specializing in Cognitive Psychology 2020

High School Diploma

Point Grey Secondary
Graduated with honors 2015

RESEARCH EXPERIENCE

Novel Analysis of Representational Connectivity in the Brain

Present

Motivated Cognition Lab – University of British Columbia

Supervisors: Dr. James Kryklywy and Dr. Rebecca Todd

- Project focused on methodological innovation for neuroimaging analysis
- Analysis of emotional and sensory communication information in the brain
- Statistical analyses and graphical representation using R
- Matrix manipulations in MATLAB
- Neuroimaging processing and displaying done in AFNI
- RSA script in Python

Senior Thesis*

2020

Behavioral Sustainability Lab - University of British Columbia

Motivated Cognition Lab – University of British Columbia

Supervisors: Dr. Jiaying Zhao and Dr. Rebecca Todd

*Data collection disrupted due to Covid-19

- Examining the affective responses produced by VR induced overview effect and its effect on climate change attitudes
- Produced novel idea of examining relationship between the overview effect and climate attitudes
- Conducted literature review
- Created study design and protocol
- Completed and obtained ethics approval (UBC BREB)
- Rendered stimulus (Earth) in Unity
- Collect, record, and analyze subject data (Heart Rate, GSR, and Questionnaires)

Behavioral Sustainability Lab

2019-Present

University of British Columbia

- Worked on my senior thesis examining the consequences of the overview on climate change attitudes
- Completed and obtained ethics (UBC BREB)
- Dynamic model of Earth created in Unity
- Coded aspects of the environment in C# (atmosphere, cloud movement, earth rotation)
- Coded player movement scripts in C#
- Coded Oculus Rift headset and Oculus controller integration in C#
- Prepared surveys in Qualtrics measuring several psychological variables (PANAS-X, AWE-S, INS, Climate Concern)
- Learned use of Empatica E4 wristband to collect physiological data (Heart Rate & GSR)
- Learned to use QRSTool, an open source software, to analyze physiological data

Behavioral Reward Affect & Impulsivity Neuroscience (BRAIN) Lab 2019 - 2020

University of British Columbia

- Project focusing on using the MUSE (portable EEG headband) to assess implicit craving in clinical populations with concurrent stimulant use and mental disorders
- Project aiming to use the MUSE headband to identify a novel biomarker for craving and relapse
- Worked on ethics applications for new studies and add-ons for ongoing studies

Motivated Cognition Lab

2018 – Present

University of British Columbia

- Worked on study investigating the influence of physiological arousal on reward
- Head research assistant for experiment examining attentional biases and emotion
- Received supervision for senior thesis
- Learned proper EEG usage – electrode handling and running participants
- Learned EEG preprocessing and data analysis (EEGLAB & ERPLAB)
- Worked on project aiming to find a novel analysis technique for fMRI data
- Learned to use Analysis of Functional NeuroImages (AFNI) – an open source environment for processing and displaying fMRI data

PUBLICATIONS AND POSTERS

Poster Presentation – Safi, O.K., Tommasi, M. (2020). Carbon Footprint Information Promotes Sustainable Food Choices. Northwest Cognition and Memory (NOWCAM) Conference.

Poster Presentation – Safi, O.K., Li, A.C., Cheng, A.F., Schuetz, C.G. (2020). Assessing Cue-Induced Craving Using the Muse in Individuals with Methamphetamine Addiction. Department of Psychiatry 2020 Virtual Research Day.

Paper – Safi, O. K., Tommasi, M., Sun, B., Thornley, J., Dodani, A. (2020). Carbon Footprint Information Promotes Sustainable Food Choices. UBC SEEDS.
<https://open.library.ubc.ca/cIRcle/collections/undergraduateresearch/18861/items/1.0392724>

Poster Presentation – Safi, O.K., (2020). Climate Change, Affect, and The Overview Effect. UBC Psychology Undergraduate Research Conference*.

*Poster accepted but conference cancelled due to Covid-19

Paper – Safi, O. K., Hughes, B. (2018). Evolutionary Plausibility of Connectionist Models of Cognition. *Cognitive Systems UBC*. Displayed on program website.

SKILLS

Programming Languages: C, C#, Python, R, HTML/CSS

Statistical Programs: R, SPSS, JASP, G-Power

Experimental Technology: PsychoPy, QRSTool, Afni (Neuroimaging), MATLAB, EEGLAB & ERPLAB, Qualtrics

Web Frameworks: WordPress, Weebly, Squarespace

Visual/Audio Programs: Unity, Adobe Photoshop, Adobe Illustrator, Audacity

Natural Languages: English, Dari, Farsi, Hindi, Urdu, Spanish, German (Learning)

AWARDS & ACCOMPLISHMENTS

Visiting Philosopher 2018
University of Pittsburgh, Department of Philosophy

- Worked with other visiting academics on a wide range of issue in philosophy of science
- Areas discussed included laws of nature, thought experiments, scientific controversy, confirmation theory, ethical issues in science, and modern technologies
- Funding provided by Pittsburgh University's Center for Philosophy of Science

Grant 2018/2019
Arts Undergraduate Society (AUS)

- Wrote grant application and secured a club operation grant from the AUS
- Amount: \$1000

Cognitive Systems Podcast (CogsCast) 2017 - 2020
Official Podcast of UBC CSS

- Cofounder and host
- Podcast discussing and examining various topics of interest in Cognitive Science
- Topics include, but are not limited to, consciousness, intelligence, psychedelics, and emerging technologies

Vice President Media 2019 - 2020

Cognitive Systems Society (CSS)

- Responsible for the Cognitive Systems Podcast (CogsCast)
- Responsible for improvement and maintenance of the CSS website
- Responsible for monthly newsletter
- Involved in planning and running academic events throughout the year

Vice President Arts External

2018 - 2019

Cognitive Systems Society (CSS)

- Cognitive Systems representative to the Arts Undergraduate Society (AUS)
- Established a working relationship between the AUS and the CSS
- Successfully secured AUS club grant
- Involved in planning and running events for the CSS and AUS

CERTIFICATIONS

VCH Privacy and Confidentiality

2019

Vancouver Coastal Health

Ethical Conduct for Research Involving Humans

2016

Tri-Council Policy Statement 2: CORE

MEMBERSHIPS AND AFFILIATIONS

Cognitive Science Society: Member (2020)

Cognitive Systems Society: Member (2017-2020), Executive (2018-2020)

UBC Psychology Students Association: Member (2019-2020)

UBC Arts Undergraduate Society: Departmental Representative (2018/2019)

COMMUNITY AND VOLUNTEER ACTIVITIES

Volunteer at Technical Career Fair

2020

University of British Columbia

An annual fair held in January at the University of British Columbia that provides students the opportunity to meet with industry employers

Planning Committee Member

2018

Life Sciences Research Night – Undergraduate Research Opportunities

An annual event held at the University of British Columbia that aims to educate and inspire undergraduate students about research and how to get into research

Imagine Day Orientation Leader

2017

University of British Columbia

Provided orientation to incoming undergraduate students and provide ongoing support throughout their first year of university

Peer Mentor

2011 – 2015

Best Buddies Canada

Paired with a student with an intellectual and/or developmental disability

Participated in activities throughout the year – coffee, movies, skating, basketball, etc.