## Ryan P. Leman

#### Resume

Contact Information
Address: 36812 W Lakeland Drive Mechanicsville, MD 20659
Education
B.S Psychology University of Colorado Denve Minor in Behavioral & Cognitive Neuroscience
Work Auth.
Research Experience
<b>Advisor:</b> Dr. Maesoon In 05/15/19 — 08/15/19

#### Impact:

- Created behavioral experiment
- Trained research team to conduct behavioral experiment including acquiring, processing and analyzing experimental research data
- Procured and set up equipment for the experiment
- Implemented motion tracking software

#### Skills attained:

Research lead & project management, Proof of concept testing, Training research colleagues, Data presentation & communication, Procurement of research related hardware & software.

#### Job description:

During the summer of 2019 I had attended a summer research internship at the Korea Institute of Science and Technology (KIST) in South Korea. My supervisor was Dr.Maesoon Im who investigates neurotechnological means of restoring vision for cases of macular degeneration in the rat model. During my time there, I was in charge of creating a behavioral test to approximate the efficacy of vision restoration efforts in rats. For this, I had chosen a classical fear conditioning paradigm. The idea being to condition rats to freeze from a specific visual cue before their vision is damaged and measure the percent of freezing compared to total visual cues before & after vision restoration efforts. I had also trained the other lab personnel to carry out the experiment and

analysis for when I left. The most important aspect of this experience was learning how to independently carry out professional research from conception to execution.

#### Research Assistant

University of Colorado Denver

# **Advisor:** Dr. Erik Oleson 04/15/18 — 02/15/21

#### Impact:

- Co-authored in peer-reviewed research journal
- Used R to optimized data processing procedure
- Presented current research at several national conferences
- Won undergraduate research grant

#### Skills attained:

Data acquisition & processing in rat model, Statistical analysis such as T-tests, ANOVA analysis & exploratory analysis, Research related technical writing Research presentation, Stereotaxic surgery & insertion of head mounts on rats, Research related animal care (rat model), Intraperitoneal drug administration. Basic micro-electrode fabrication. R programming language, MS Excel, MatLab. Micropippetting, Viral micro-infusions, independently conduct fast scan cyclic voltammetry.

#### Job description:

For most of my college career I worked under Dr. Erik Oleson at the University of Colorado Denver. As a research assistant I co-authored a research paper investigating dopamine release within the nucleus accumbens shell of awake and behaving rats. Using fast scan cyclic voltammetry with drug administration we investigated the differing effects of a variety of drugs for the above mentioned and other studies. This experience also lead me to begin coding which is something I've kept doing outside of college as a hobby. During this job and formal training in data science courses, I attained a professional proficiency using R and MS Excel and a familiarity with many other coding languages which are listed in skills section of this resume.

#### Research Intern

University of Colorado Denver

# **Advisor:** Dr. Jim Grigsby 01/15/17 — 03/15/18

#### Impact:

- Guided human participants through surveys, stress and cognitive tests
- Collected physiological data including heart EEG & galvanic skin response
- Aided in volunteer recruitment
- This experience allowed me to earn MARC-Ustar scholarship

#### Skills attained:

Research involving human participants. EEG recording, Galvanic skin response recording, Cognitive test administration, administration of survey data.

#### Job description:

This was my first research experience. To use a metaphor, this was my time to dip my feet in the waters, to see if research was for me. In this lab we were investigating a correlation between heart rate variability, cognition & stress levels which is important for a broader project this lab was working on. While the extent of my training only included collecting survey data from human participants, collecting heart EEG & galvanic skin response data this position was where I needed to be. Due to this volunteer internship, I got to meet the head of the psychology department who encouraged me to apply to the MARC-USTAR research program. This one meeting paved the way for all of my future successes in the research aspect of my college career.

Teaching/Mentoring \_\_\_\_\_ Teaching/Mentoring

Teaching Assistant: Behavioral Neuroscience PSYC 4054 Supervisor: Dr. Erik Oleson University of Colorado Denver Semesters: Spring 2021, Fall 2020, Fall 2019

I graded most assignments and held class discussion on the subject of behavioral neuroscience & neuroscience research in general once per week.

Teaching Assistant: Drugs, Brain & Behavior PSYC 3265 Supervisor: Dr. Erik Oleson University of Colorado Denver Semesters: Spring 2021, Fall 2020, Fall 2019

Graded assignments and held class discussion on the subject of pharmacology as it pertains to introductory level neuroscience subjects and research pertaining to pharmacology.

Teaching Assistant: Exercise, Brain & Behavior PSYC 3264 Supervisor: Dr. Ben Greenwood University of Colorado Denver Semesters: Spring 2021

This course teaches the neuroscience of exercise on the healthy human brain as well as in the context of disorders such as clinical depression & anxiety.

Teaching Assistant:Biological Basis of Behavior PSYC 2220 Supervisor: Dr. Ben Greenwood University of Colorado Denver Semester: Spring 2021

An introductory level course combining concepts learned in biology with basic neuroscience concepts. This is a great course for biology students wanting to learn how biological & neuroscientific concepts directly tie into human behavior.

Work Experience \_\_\_\_\_\_ Work Experience

#### Skills attained:

Taking inventory, Time optimization, high stress attention to detail (or attention to detail under pressure), stocking, working in fast pace environment.

#### Job description:

**Date:** 09/2016 - 02/2017

In this role, I was mainly involved in stowing but had also cross trained in picking. In both of these positions I maintained above average performance matrices which is how employ productivity is measured. While these two positions seem similar, the important distinction is that stowing consists of taking inventory of items coming into the facility and placing them into the correct bins for cross-site transportation. Picking included taking such items from the bins & placing them into totes so they can be sent directly to packaging or to damaged items. The purpose then of stowing was to enable the facility to add extra processing steps between taking inventory and the item being sent for packaging by the picker. By the time a picker gets an item the item should be ready for packaging unless damaged.

QMAP/Caregiver — Anthem Memory Care Westminster Colorado, Greenridge facility

#### Skills attained:

Team management, Working with the elderly, Working with mental illness, Basic wound care, Multitasking with strict time constraints, De-escalation related to mental illness, Human drug administration as directed by medical professionals, Organization of medications & patient documentation.

#### Job description:

I provided direct care to residents of mild to severe states of dementia. As a QMAP I was responsible for providing very basic medical care during such incidences as falls until medical professionals arrived. I also provided these residents their medications & created documentation on their well being day to day. My other duties included helping caretakers with resident care-taking, provided other very basic medical services such as basic wound care & aided hospice with end-of-life care.

Customer Service Representative — Dish Network Date: 08/2013 — 02/2016 Thornton Colorado, Dish call center

#### Skills attained:

Customer communication, Customer de-escalation, Account management & setup, Customer routing, Remote equipment troubleshooting, Bill ledger interpretation.

#### Job description:

I provided remote customer service to Dish Network customers. In this role, I would resolve customer concerns such as billing questions, technical questions (including equipment troubleshooting), & questions regarding their current service. I would also create work orders for Dish Network technicians & set up new accounts for new customers. Lastly, if I could not resolve an issue, I would transfer the customer to a specialist however we are trained to keep these transfers to a minimum to maintain customer satisfaction.

### Awards, Publications & Presentations

Awards	Awards
2018-2020	MARC-U Star Affiliate Awarded MARC-U Star Scholarship; This program is dedicated to maximizing access to research careers, particularly for underrepresented groups. I was awarded this for demonstrating excellence early in college despite growing up in a financially disadvantaged family. \$28,800
Spring 2019	<u>UROP Grant</u> Received a grant from the Undergraduate Research Opportunity Program at the University of Colorado Denver. \$1,200
Summer 2018	International Program for the Advancement of Neurotechnology Received award for participation in the IPAN program hosted by University of Michigan. \$6,000
Fall 2018	SACNAS Undergraduate Presentation Award Received presentation award in Psychology and Social Sciences: Other Psychology & Social Sciences.
Spring 2017	CLAS-Samuel Priest Rose Scholarship This scholarship is awarded to undergraduates majoring in psychology with a preference to studies of cognition and/or developmental psychology \$2,000
Fall 2018	Lynx Success Grant Received this grant for academic excellence determined by cumulative GPA. \$3,600
Publications	Publications

Isaacs, Dominic; **Leman, Ryan**; Everett, Thomas; Lopez-Beltran, Hendrick; Hamilton, Lindsy; Oleson, Erik (2020). Buprenorphine is a weak dopamine releaser relative to heroin but its pretreatment attenuates heroin-evoked dopamine release in rats.

Neuropsychopharmacology Rep. 2020.(Research Paper: **Published**)

#### Jonte B. Roberts, Leman, Ryan, Oniza M. Chaman, Erik B. Oleson (2020).

Characterization of the effects of systemically increasing DA, 5-HT, and NA levels on the valuation of rewards vs avoidance. Research and Creative Activities Symposium (RaCAS), local conference held at the University of Colorado Denver, CO. (**Poster**)

#### Thomas Everett, **Leman, Ryan**, Hendrick Lopez-Beltran, Erik Oleson (2020)

Chronic synthetic cannabinoid administration may produce tolerance to the dopamine releasing effects of heroin. Research and Creative Activities Symposium (RaCAS), local conference held

- at the University of Colorado Denver, CO. (Poster)
- Oniza M. Chaman, Nathan Smith, **Ryan P. Leman**, Erik B. Oleson, Jonte B. Roberts (2020) Characterization of the effects of systemically increasing DA, 5-HT, and NA levels on the valuation of reward vs. avoidance. Activities Symposium (RaCAS), local conference held at the University of Colorado Denver, CO. (**Poster**)
- Thomas Everett, **Ryan Leman**, Hendrick Lopez-Beltran, Oniza Chaman, Dominic Isaacs, Erik B Oleson (2019) Commonly abused drugs differentially increase the frequency and amplitude of accumbal transient dopamine release events. Experimental Biology (EB) Annual Conference. Orlando, FL. (**Poster**)
- T. Everett, R. Leman, H. Lopez-Beltran, O. Chaman, D. Isaacs, E.B. Oleson. (2018) A transient dopamine signal represents the value of avoidance in negative reinforcement. Experimental Biology (EB) Annual Conference. Orlando, FL. (Poster)
- Leman R, Everett T, Gomez D, Oleson E. (2018)

Ecstasy (MDMA) increases the frequency but not the amplitude of transient dopamine release events. Society for the advancement of Chicano/Hispanic and Native American Scientist (SACNAS) annual conference. San Antonio, TX. (Poster)

## Notable College Courses

College Courses [Grade] Cumulative GPA [3.6]				
Mathematics	Research Courses	Psychology	STEM	
MATH 4830 Applied Statistics [A]	PSYC 4780 Sci Research Ethics [A]	PSYC 4164 Psychology of Perception [A]	BIOL 3832 General Genetics [B]	
MATH 3376 Data Wrangling Visualiza- tion [B+]	MARC 4680 Sci Research Seminar [A]	PSCY 4054 Behavioral Neuroscience [A-]	BIOL 3611 General Cell Biology [B+]	
MATH 2830 Introductory Statistics [B]	MARC 4090 Research Design & Development [A]	PSYC 3832 Neural Basis of Learning [A]	BIOL 2081 General Biology Lab II [A]	
PSYC 2090 Statistics & Research Methods [B]	PSYC 3090 Research Methods In Psychology [A]	PSYC 3810 Neuropsychology [A]	BIOL 2071 General Biology Lab I [A-]	
		PSYC 3305 Abnormal Psychology [A]	CHEM 2068 General Chemistry Lab II [B- ]	
		PSYC 3265 Drugs, Brain, and Behavior [A]	CHEM 2061 General Chemistry II [B]	
		PSYC 3264 Exercise, Brain and Behavior [A]	BIOL 2061 General Biology II [A-]	
		PSYC 3215 Human DevelopmentII /Adolescence-Adult [B]	BIOL 2051 General Biology I [A]	
		PSYC 3205 Human Development I/Child Psychology [B+]	CHEM 2038 General Chemistry Lab I [B-]	
		PSYC 3144 Human Cognition [A]	CHEM 2031 General Chemistry I [B-]	

## Skills & Training

#### Research

- Cognitive test administration & stress-test survey administration
- Data presentation & communication
- taking EEG & Galvanic skin response recordings
- Conduct fast scan cyclic voltammetry
- Micro-pippetting

- Procurement of research related hardware & software
- Proof of concept testing
- Scientific and Technical writing
- Research with human participants
- Research Lead & Project management
- Animal care in research setting

- Rat drug administration
- Research Presentation for conferences
- Statistical Analysis, Exploratory Analysis
- Stereotaxic surgery
- Team management and training
- Viral micro-infusions

#### Computer

- Adv. Computer usage Windows & Linux
- Basic remote equipment troubleshooting
- Coding in R, MatLab, C++, Latex, Common Lisp, Python, MS Excel
- Word, Excel, Onedrive

#### Mental Health

- Basic wound care
- Dementia care taking
- Elderly care

- Human drug administration
- Multitasking with strict time constraints
- Organization of medications & patient documentation

#### <u>Customer focused</u>

- Account management & setup
- communicating bill ledger
- Customer communication
- Customer de-escalation
- Customer routing
- Attention to detail under pressure
- Remote Customer Communication
- Remote equipment troubleshooting
- Time optimization
- Works well in team & independently