JACK LLOYD BURGESS

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA **Entered September 2020**

Doctor of Philosophy in Neural Computation, Cognitive Axon (CoAx) Lab, Prof. Timothy Verstynen

Computational modeling of imagination and of speech error repairs, TA for computational neuroscience program "uPNC"

Dartmouth College, Hanover, NH **June 2020**

A.B. cum laude with High Honors in Computer Science and Neuroscience, GPA 3.71

Senior honors thesis: "Memory constraints in cued-recall-dependent learning and performance tasks: why do humans struggle with simple yet memory-intensive tasks?" (link: https://digitalcommons.dartmouth.edu/senior_theses/153)

Aquincum Institute of Technology (AIT-Budapest), Budapest, Hungary **Fall 2018**

SKILLS

Programming: Python, R, MATLAB, C, Java, JavaScript, Bash, Prolog, VHDL
Languages: Basic proficiency in Spanish; Basic ability in German, Hungarian, and Japanese

EXPERIENCE

Liquidaty, New York, New York **June - August 2020**

Summer Automation Software Engineering Intern

- Worked remotely to build a web-based user interface for designing automated financial data analysis workflows
- Learned web coding in JavaScript with jQuery

Dartmouth College, Brain Engineering Laboratory **January 2017 - June 2020**

Research Assistant, Prof. Richard Granger

- Coded statistical tests to discover patterns in large data sets, presented poster (See schizophrenia publication below)
- Designed and completed a three-term research project under a James O. Freedman Presidential Scholarship, "Using neural algorithms to develop an intelligent agent inspired by the mammalian brain plan"

Carnegie Mellon University and University of Pittsburgh, Center for the Neural Basis of Cognition **May - August 2019**

Undergraduate Research Program in Computational Neuroscience (uPNC), Prof. Timothy Verstynen

- Built, ran, and analyzed results of a human behavior experiment (n=24) testing for separate reward vs. information values
- **Poster:** "Separately maximizing reward & information in learning" (link: https://bit.ly/2H9zBiM)

Dartmouth College, Department of Computer Science **January - March 2019**

Teaching Assistant, CS 74/174 Machine Learning and Statistical Data Analysis, Prof. V.S. Subrahmanian

- Held office hours, solved assignments, and graded homework, projects, and exams for a class of 78 students

Credentially, London, United Kingdom **July - August 2016**

Information Technology Intern

- Interned while the Credentially team was participating in the acclaimed Techstars Startup Accelerator
- Researched healthcare policy to inform development of app for new reporting processes in UK healthcare

HONORS & AWARDS

Richard King Mellon Foundation Presidential Fellowship in the Life Sciences **2020 - 2021**
Associate Membership in Sigma Xi, The Scientific Research Honor Society **June 2020**
Citation for Meritorious Performance in PSYC 81.10 "Neural Bases of Attention and Consciousness" **Winter 2019**

PUBLICATIONS

Burgess, J., & Nozari, N. (2022). A conflict-based model of speech error repairs in humans. *Proceedings of the Annual Conference of the Cognitive Science Society.* Cognitive Science Society. https://bit.ly/3vr9jPy

Bowen, E. F. W., Burgess, J. L., Granger, R., Kleinman, J. E., & Rhodes, C. H. (2019). DLPFC transcriptome defines two molecular subtypes of schizophrenia. *Translational Psychiatry*, *9*(1), 147. https://doi.org/10.1038/s41398-019-0472-z

ADDITIONAL ACTIVITIES

Dartmouth College Marching Band, Trumpet; *Show Chair*, *Webmaster* **Fall 2016 - Winter 2020**
Dartmouth College North Park Residential House, *Executive Council Member* **Fall 2016 - Winter 2020**
Catalina Foothills High School Programming Club (Progrub), *Founder*, *Leader*, *and Teacher* **Fall 2012 - Spring 2016**