Brandon Forys
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Education

BA (Honours) in Psychology, the University of British Columbia, expected May 2020
Psychology average: 89% | Cumulative average: 88%
High School Diploma, Tempo School (Edmonton, AB), June 2016

Honours and Awards

Suedfeld Scholar Award, UBC Psi Chi, 2019 ($500)
Wesbrook Scholar, UBC, 2019 ($1,000)
HSBC Emerging Leader Scholarship, UBC, 2019 ($5,000)
PSYC 217 Poster Award, 1st Place, UBC Psychology, 2018
Student Scholarship in Arts, UBC Faculty of Arts, 2018 ($1,000)
Trek Excellence Scholarship for Continuing Students, UBC, 2017 ($1,500)
Stephen Straker Arts One Prize, UBC Arts One Program, 2017 ($1,000)
University of BC Sopron Memorial Scholarship, UBC, 2016 ($5,000)
Dean's List, UBC Faculty of Arts, 2016-17 and 2017-18

University activities (Research)

Paper. Forys, B., Xiao, D., Gupta, P., Boyd, J. D., & Murphy, T. H.(2018). Real-time markerless video tracking of bodyparts in mice using deep neural networks. *BioRxiv*, 482349. https://doi.org/10.1101/482349

Poster Presentation. Forys, B., Tobiansky, D. J., & Soma, K. K. (2019). A novel steroidogenic model for reward-seeking behaviour. Presented at UBC Psychology Undergraduate Research Conference, 2019.

Poster Presentation. Forys, B., Xiao, D., Gupta, P., Boyd, J. D., & Murphy, T. H. (2018). Real-time markerless video tracking of bodyparts in mice using deep neural networks. Presented at UBC Brain Circuits Cluster 2018, Neuroextravaganza 2018, UBC Undergraduate Neuroscience Conference, 2019.

Poster Presentation. Tobiansky, D. J., Kachkovski, G., Enos, R. T., Schmidt, K. L., Ma. C., **Forys, B.**, Hamden, J. E., Jalabert, C., Floresco, S. B., Murphy, E. A., Soma, K. K. (2018). Perinatal sucrose exposure in rats disrupts hormones, brain, and behavior in adulthood. Presented at Neuroscience 2018.

Poster Presentation. Forys, B., Phi, J., Shi, L., Yu, V. ZH. (2018). Emojinal perception: Emoji presence and perceived emotional valence. Presented at UBC Psychology Undergraduate Research Conference, 2018 (PSYC 217 Poster Award, 1st place winner).

Poster Presentation. Forys, B., Tandun, R., Cookson, J., & Xiao, D. (2018). Predicting facial and paw movement from cortical mesoscopic calcium activity in mice: A machine learning perspective. Presented at UBC Multidisciplinary Undergraduate Research Conference, 2018.

Research Assistant with Prof. Rebecca Todd, UBC Psychology, 2019-present.
Investigating aversive responses and learning using stimulus associations. Learned Python, MATLAB, LabChart, and PowerLab.

Research Assistant with Prof. Kiran Soma, UBC Psychology, 2018-present.
Researching methods for predicting local neurosteroid concentration from circulating steroid hormone concentrations. Learned bioinformatics for microbiology, histological analysis, cluster computing, and R for statistics.
Research Assistant with Prof. Tim Murphy, UBC Psychiatry, 2017-present.
Investigating movement and behavioural dynamics of mice using movement tracking; exploring the relationship between body part movement and mesoscale brain activity in mice. Learned Python, MATLAB, brain slicing, and microscopy.
Workshop Host. Databinge; DeepLabCut. UBC Neuroscience, 2018.
Taught members of UBC's neuroscience research community how to use a novel movement tracking system.

University Activities (Leadership & Extracurricular)
VP Internal, UBC Chapter of Psi Chi, 2019-present.
Tutor, UBC Psychology, 2019-present.
Tutors PSYC 218 students and aids them in understanding the course material and statistical methods.
Vice President, Academic-Internal, Model United Nations Student Association, 2018-present.
Hires staff for, prepares materials for, and oversees execution of Model UN conferences at UBC.
Co-Founder and Vice President, AMS Turing Club @ UBC, 2017-present.
Leads workshops on a variety of artificial intelligence topics for UBC students of all backgrounds; markets the club through email and social media.
Volunteer Web Developer, Ubyssey Publications Society, 2017-18.
Implemented a number of front-end and back-end improvements and fixes on the Ubyssey website; developed a software package to make it easier for Ubyssey web developers to start working with the website on their own computers.

Community and Volunteer Activities
Software Engineering Team Member, rLoop Incorporated, 2017-present.
Works with a global team of engineers and designers to design a one-person flying machine for the Boeing-sponsored HeroX GoFly competition. Researching human factors considerations for cockpit and control design. Previously helped design a new, AI-based communication system for a hyperloop vehicle involved in the SpaceX Hyperloop Competition.

Skills
Programming Languages: Python, bash, R, MATLAB, JavaScript, C, C++, HTML/CSS, Java
High Performance Computing: SLURM
Machine Learning: TensorFlow, Keras, CUDA, OpenCV
Web Frameworks: Django, Flask, npm, Bootstrap, Wordpress, Squarespace
Infrastructure: Docker, VirtualBox, QEMU
Visualization: Photoshop, Inkscape, Inventor, Unity, Blender, AutoCAD, 3DSMax, Revit
Experimentation Techology: PsychoPy, PsychToolbox, LabChart/PowerLab

Professional affiliations
Member, Psi Chi International Honor Society in Psychology, 2019-present.
Student member, Association for Psychological Science, 2018-present.