ubc science co-op
T: 604.822.9677 | F: 604.822.9676 | science.coop@ubc.ca | www.sciencecoop.ubc.ca

Nabil Khaja

3rd year Bachelor of Computer Science

SKILLS

Technical	Applications	Soft
Java	IntelliJ	Expert Presentation Skills
Python	Matlab	Writing**
HTML	Brackets	Experimental Design
CSS	Adobe LightRoom	Sales
R*	Rstudio	Leadership

* Learning || ** Over $26,000 in grants acquired for side projects

TECHNICAL PROJECTS

Personal Website (Personal Project) *Apr 2016*

- Completed a beginner-to-expert course on HTML/CSS on Udemy and built a responsive website from scratch
- Features include button-effects, feedback forms, responsive menus, and sticky navigation; Visit nkhaja.github.io

Technical Skills Used: HTML, CSS, Brackets, basic jQuery, Optimization

Mind the Gap (Academic Project) *Mar 2016*

- Completed an app that tracks arrivals and departures at the subway stations for London Underground
- Wrote JSON parsers to extract information from TfL Open Data Service to get real time updates
- Implemented methods to find nearest stations and plotted paths extending from a long-pressed stations, and displayed a list of earliest arrivals at a selected station
- Designed JUnit tests to ensure components were properly tested, fixed defects to ensure a robust applications

Technical Skills Used: Java, Android Studio, IntelliJ, jUnit, Android Emulator

Predicting Applicant Volume to U.S. Colleges – R programming (Academic Project) *Apr 2016*

- Built a multiple regression equation that predicts applicant volume to U.S. colleges
- Applied an exhaustive search to remove extraneous variables, and calculated cross validated root mean squared error for several prospective equations using training and holdout sets. Constructed residual, scatter, qq-norm, and box plots to aid analysis.
- Final model used seven variables and accounted for 85.6% of variability in the data

Technical Skills: R programming, RStudio

LSAT Problem Solver (Academic Project) *Nov 2015*

- Used Dr. Racket (functional programming) to solve an LSAT-style problem; implemented a generative recursion search algorithm to generate a next-choice tree based on previous choices

Technical Skills: Racket/BSL, Testing

SELECTED RESEARCH EXPERIENCE

McMaster Renaissance Award Project – Cultural Determinants of Healthy Aging in Okinawa, Japan *May – Sep 2015*

- The Renaissance Award funds students to pursue creative projects outside of their existing discipline
- Interviewed elders (aged 70 – 100) throughout Okinawa prefecture, studied Okinawan history, cuisine, and martial arts. No prior experience with Japanese or qualitative research. Independent project.
- Project Website in Progress: www.yuimaru-okinawa.net

NSERC-USRA; Senior Thesis, Electrophysiology – McMaster Batlab *May 2014 – Apr 2015*

- Conducted electrophysiological recordings on duration tuned neurons in Big Brown Bats
- Wrote Python scripts for extracting and calculating desired measurements from lab database, produced publication quality figures using Graphics Layout Engine, and completed One-way ANOVA with SPSS.

Individual Research Practicum - Applied Cognition in Education Lab *Jan 2014- Present*

- Designed experimental passages and test questions, programmed an experiment in Python, and performed statistical analyses for 140 subjects on SPSS

Analyst - Millennium Research Group (MRG) *May – August 2012*

- Collected data for the "US Anesthesia Devices 2012" report by interviewing industry experts and collecting secondary information from publications, and online databases. Forecasted market behavior for Anesthesia-related medical devices with Microsoft Excel

---

SELECTED TEACHING EXPERIENCE

Graduate Teaching Assistant – IntroPsych I & II *September 2015-April 2016*

- Lead weekly instructional seminars for International students in psychology; teaching writing and presentation skills

Senior Teaching Assistant – IntroPsych I & II *September 2013 – April 2015*

- Prepared and delivered course content in weekly seminars for over 80 students across 3 classes
- McMaster TED-Ed 2013 "Best talk" Award (www.intropsych.net); 2nd for "Kathy Steele TA of the Year" award

Curriculum Assistant – IntroPsych I & II *May 2014-May 2015*
Curriculum Assistant –Applied Educational Psychology *Jan 2014 – Sep 2014*

- Designed seminars, web module content, polls, test questions, weekly quizzes, and course infographics
- Reformatted the curriculum for a seminar class designed to teach instructional skills and pedagogy

---

SELECTED VOLUNTEER AND LEADERSHIP EXPERIENCE

President - McMaster BioPsych Society *Oct 2012 – Apr 2015*

- Co-ordinate leadership, research, and academic assistance opportunities for BioPsych students

Chair - NeuroXchange Conference Committee *Aug 2013-April 2014*

- Raised $5000+ to finance conference; booked venues, equipment, and coordinated a 12-member committee

Sustainable Futures Project *Sep 2014 – Aug 2015*

- Designed and built a 1600W "Do it Yourself" solar powered generator at a local teaching farm in under $1200
- Completed research, schematics, and approvals for a solar and wind powered light tower built on campus, won over $8000 in grants to fund project

---

EDUCATION

Bachelor of Computer Science, University of British Columbia *Sept 2015 –Present*

- *GPA: 3.7*

BSc, McMaster University, Honours Biology and Psychology *2015*

- *GPA: 3.97 ; suma cum laude* ; Dean's Honours List *(2012-2015)*

Selected Post-Secondary Scholarships and Awards 2013 - 2014

- NSERC Undergraduate Student Research Award * 2 *(2013, 2014)* -$12,000 | McMaster Renaissance Award - $14,000 | Dr. Henry Leaman Hooker Scholarship - $1500 | McMaster President's Award - $1000 | Johnson Inc. Scholarship - $1500 | Wal-Mart Canada Scholarship - $4000 | American Express Scholarship - $ 8000 | Nominated for McMaster University Chancellor's Gold Medal Award |Top 5 – Google Games Vancouver |**Totals over $44,000 in Scholarship**