Bē /dereklam97382c

lam.io

derek@lam.io

(925)-319-7041

/acrylic-origami

/3925507/concat

HELLO, I'M

DEREK LAM.

PRIOR WORK EXPERIENCE

Team Lead
MannLab Canada
May–Sep. 2019

`HTML` `MATLAB`
`∞` `PYTHON`

MannLab is a research group studying signal processing as it relates to visualization and human-computer interaction. I guided a project to build portable EEG hardware and software to capture images using the human eye as a camera (IEEE paper title). Pictured: a real-time AR visualization of a bipolar motor control waveform as part of Moveillance: Visualizing Electric Machines.
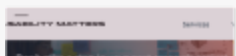
Student Researcher
https://www.pmel.noaa.gov/co2/fle/-SOFS+Buoy

CSIRO – O&A Hobart
May – Aug. 2018

`MATLAB` `PYTHON`

"Without much direction, Derek was able to expore the field of mooring dynamics, a new field for him, and provide valuable tools and analyses that will inform future engineering efforts."
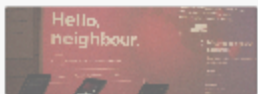
Andrew Martini
Research Group Leader

Consultant Web Developer
Usability Matters
Sep. 2015–Dec. 2016

`PHP` `MySQL` `HTML`
`CSS` `JS` `SH`
`Ps` `Ai`

UX Engineer Intern
BlueDot Inc.
May–Sep. 2017

`MySQL` `REACTJS`
`CSS` `PYTHON`
`Ps` `Ai`

Data Analyst Intern
City of Toronto
Open Data

July-August 2014

`PHP` `MySQL` `HTML`
`CSS` `JS` `∞` `SH`
`Ps` `Ai`

Icon & Print Designer + Database Programmer
RocScience
May–Sep. 2016

`PHP` `SQL SERVER`
`C#` `VBA` `PYTHON`
`Ps` `Ai` `Id`

CURRENT WORK

Non-volatile memory device engineer
As a device engineer, I characterize, spec and simulate transistor circuits that control next-generation memory technologies. Device reliability focus.

Microchip Inc.
Sep 2019 – Present

ACADEMICS

ALMA MATER	PROGRAM	CUMULATIVE GPA
University of Toronto	*Engineering Science — ECE major*	*3.70*

VOLUNTEER WORK

Electrode Localization GUI Programmer
Lab of Prof. Roman Genov   Jan 2017 - May 2017
`MATLAB`

Web Programming Instructor
Project Include   Jul 2016 - Aug. 2016
`HTML` `CSS` `JS`

PERSONAL PROJECTS

3DOF robotic tail
[github]/3dof-tail
March 2020 – Ongoing
`PYTHON` `STM32`

A 3-degree-of-freedom wearable meter-long tail with full hemispherical range, position-based control including a custom 3-phase servo, and lights of course.

Budget: $1000. Design fun: priceless.

ra.hs: Symbolic executor for Haskell modules
[github]/ra.hs
[github]/stacker
May 2019 – Ongoing
`HASKELL`

ra.hs was originally developed to detect race conditions by tracking reads and writes of execution paths in Haskell modules to mutable state. After surprising ease at incorporating most of Haskell98, its scope is being expanded to capture general program statistics in Haskell packges.

RECENT AWARDS

2019
NSERC – USRA Research Student Award

2017
NSERC – Experience Award

2016
UOFT – Dean's Scholar of Excellence Award
NSERC – Experience Award

2015
UOFT – President's Scholars of Excellence Entrance Award
UCC – Head Boy
UCC – Governor General's Medal
UCC – Grant Medal
UCC – IB HL Physics Prize
UCC – IB SL Economics Prize
UCC – Class of '64 Award