# Deniz Aydin

Location: Victoria, BC

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#### Education

# **Doctor of Philosophy**

University of Victoria

April 2013 - August 2016

January 2020 - September 2021

Thesis: Sensing and Emission in Optical Cavities

# Master's in Applied Science

University of Toronto

September 2010 - December 2012

Thesis: Functionalization of Photonic Crystal Slab Biosensors

### Bachelor of Science

McGill University

September 2006 - May 2010

Thesis project: Functionalization of Gold-Conjugated Doxorubicin

## Work Experience

## **Semaphore Solutions**

September 2021 - Present

Victoria, BC

Software Developer

- Participated in Agile Software Development Life Cycle spanning from conception through to production.
- Developed code to implement the custom-built platform for public or private laboratory operations.
- Wrote configuration files to outline the tasks that the instruments will carry out.
- Supported customer demonstrations by working closely with Field Application Specialists.
- Participated in the code review process by giving and receiving constructive feedback.
- Gave technical demonstrations to internal stakeholders.
- Provided L2 (tier-2) support for the product.

## University of Victoria

January 2020 - September 2021

Ph.D. Student

- Developed and maintained Python code for a frequency-locking setup involving a Raspberry-PI.
- Collected and analyzed data using Python and MATLAB.

### Infinera

June 2018 - February 2019

Optical Test Engineer

- Verified optical design verification and tested optical and electro-optical components.
- Upheld manufacturing standards and reported errors.
- Lab management: created and maintained laboratory infrastructure, equipment inventories, allocated resources (\$ 500k worth of equipment), scheduled experiments, and managed scheduling conflicts (15+ engineers).
- Oversaw a lab overhaul. Increased the number of active workstations by careful planning.

#### Technical Skills

#### **Programming and Development Tools**

Python, JavaScript, C, Java, Git/GitHub, Postman/Insomnia, AWS, Docker, Camunda, HTML/CSS, Unix/Linux, CI/CD.

#### **Business Tools**

Agile, Jira/Confluence, Camunda.

# Portfolio of most relevant projects

**Semaphore Solutions** Wrote a file parser function that could handle .csv, .xls, .xlsx, and .xml

files of various levels of complexity. (Python)

Semaphore Solutions Wrote a file creator that could generate a .pdf populated with im-

ages, graphs, and other content based on data from database entities.

(Python)

**Semaphore Solutions** Used expressions in task configurations to compute linear regressions

and other relevant laboratory statistics that would then route samples

into appropriate tasks. (JavaScript)

University of Victoria Made extensive use of matplotlib, pandas, numpy, and other data sci-

entific libraries to extract raw data, automate experiments, and process

information. (Python, MATLAB)

#### Extracurricular activities

## Alpine Club of Canada, Executive Member, Trip Leader

September 2017 - Present

 $Member-at ext{-}Large$ 

Participated in environmental impact and indigenous sovereignty discussions and voted on the summer camp organization. Organized hiking and climbing trips with other trip leaders. Led a climbing footwork clinic.

## Glengarry Hospital

January 2023 - Present

Social Engagement Volunteer

As a companion volunteer, worked with older adults with dementia and other mental and/or physical illnesses. This work includes diversion from exit-seeking, reassurance, socialization, and help with activities such as using the phone. Assigned to  $\sim 8\text{-}10$  residents.