

Ro-ee Tal

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WORK EXPERIENCE

AMAZON WEB SERVICES | SOFTWARE DEVELOPMENT ENGINEER

Jun - Aug 2019 | Cape Town, SA

- Launched a stream-processing data analytics tool to production to identify customer behaviour and bugs (which already proved useful after a week), improve customer experience and automate A/B testing.
- Designed an efficient solution offering near real-time analytics on GBs of data within cost constraints.

PRINCIPLES OF SOFTWARE CONSTRUCTION | TEACHING ASSISTANT

Sep - Dec 2018 | Vancouver, CA

- Lead programming labs, design review sessions and office hours to help students debug and understand core concepts.

QUANTUM DEVICES GROUP | RESEARCH ASSISTANT

Jan - Apr 2018 | Vancouver, CA

- Assisted in experimental research in topological quantum computing by conducting transport experiments of superconductor-semiconductor nanowire quantum devices and analyzing data to characterize device behaviour.
- Expanded the lab's Igor codebase to support asynchronous data measurement, making experiments up to 4x faster.

QUANTUM DEVICES GROUP | SUMMER RESEARCH ASSISTANT

May - Aug 2017 | Vancouver, CA

- Developed a low-cost, networked and accurate lock-in amplifier, making research procedures in the lab more efficient.
- Lead the industrial design with a focus on modular circuitry and compactness.

TECHNICAL PROJECTS

FYBR SOLUTIONS INC. | CAPSTONE PROJECT

Sep 2019 - Apr 2020 | Zurich, CH, Vancouver, CA

- Researching deep learning techniques on aerial drone imagery for forestry analytics, currently 8% more accurate.

UBC SAILBOT | SOFTWARE DEVELOPER

Jan 2018 - Jan 2019 | Vancouver, CA

- Worked alongside the software and mechanical teams to develop the controller that will navigate our sailboat to the finish line of the upcoming Vic-Maui race.

INSTRUMENT DESIGN | A FULLY AUTONOMOUS AND INTELLIGENT ROBOT

May - Aug 2018 | Vancouver, CA

- Received the best prototyping grade for building a modular and beautifully designed robot with computer vision.
- Focused on developing the AI controller and integrating the circuitry into the mechanical design of the chassis.
- Together we analyzed the challenge and designed, prototyped and created the robot from scratch.

EDUHACKS | REAL-TIME COMPREHENSION ASSISTANT AI

Sep 2017 | Vancouver, CA

- Collaborated with teammates on a real-time comprehension assistant web platform designed to assist youngsters with reading disabilities by automatically generating contextual questions.

UBC ORBIT | COMMAND AND DATA HANDLING TEAM LEAD

Sep 2016 - Sep 2017 | Vancouver, CA

- Lead design sessions and collaborated with other sub-teams on integration of our satellite communication system (resilient to radiation-induced bit-flips and latch-ups).
- Published design to IAC: Duplicated Voting Processors for the Low Cost Radiation Hardening of Computers.

EDUCATION

UNIVERSITY OF BRITISH COLUMBIA

Expected 2021 | Vancouver, CA

BASc Engineering Physics | Dean's Honor List

ETH ZURICH

Sep 2019 - Feb 2020 | Zurich, CH

MSc Exchange Semester in Computational Science and Engineering | AI, Robotics, Strategic Management

SKILLS & INTERESTS

DESIGN TOOLS Solidworks | Maya | Eagle | Photoshop | Premier

LANGUAGES C | C++ | Java | Python | Matlab | Mathematica | SQL | JavaScript | HTML | CSS

TOOLS Git | Gradle | Travis CI | JUnit | Tensorflow | PyTorch | wandb | Simulink | Docker | AWS

I LIKE Walking My Doggy | Classic Fiction (Currently Russian) | Tarantino Films | Soccer | Rugby