

# GIANCARLO PERNUDI SEGURA

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## EDUCATION

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### University of Alberta

BSc Specialization in Computing Science

Edmonton, AB

Sep 2019 - Apr 2023

- **Related Coursework:** Computer Organization and Architecture, Introduction to Software Engineering, Practical Programming Methodology, Intelligent Systems, Reinforcement Learning.
- 2×Dean's Honor Roll
- 3×Jason Lang Scholarship

## EXPERIENCE

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### University of Alberta, Computer Organization and Architecture

Teaching Assistant

Edmonton, AB

Jan 2021 - May 2021, Sep 2021 - Present

- Hold help sessions for students in need of assistance with the class material.
- Teach weekly lab assignments.
- Grade exams and assignments.
- Fix grading scripts using bash.
- Onboard other Teaching Assistants with the tools used to teach computer architecture.
- Proctor midterm exams for students with accommodations.

### University of Alberta

Research Assistant

Edmonton, AB

May 2021 - August 2021

- Assist a graduate student with writing experiments using ARM SVE assembly intrinsics.
- Upgrade the servers used for assignment testing used in various classes.
- Contribute to an open source tool, RARS, by extending it to multithreaded use.
- Perform code reviews of other people's work.

### Canadian Armed Forces

Army Communication and Information Systems Specialist

Edmonton, AB

Oct 2019 - Present

- Setup and maintain communication equipment.
- Maintain personnel tracking tool using Flask and jQuery.
- Perform security audits on online web tools.
- Manage a detachment of 4 people in the field.

## PROJECTS

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### RISC-V Assembly & Runtime Simulator

<https://github.com/giancarlopernudisegura/rars>

- **Techonologies used:** Java.
- Implementation of the Atomic extension with support for multithreading.
- Fix the categorization of RISC-V instructions.

### Undergraduate Artificial Intelligence Society

<https://uais.dev>

- Current President and former General Secretary.
- Lead a team of 7 people with administration and coordination.
- Create and maintain the club website, initially with Middleman and now with Nuxt.js.

### Babel Fish Captions

<https://github.com/giancarlopernudisegura/rars>

- **Techonologies used:** Electron, Vue, FFmpeg, Google Cloud.
- HackED 2021 3rd place winner.
- Give the user live captioning with automatic transcription and translation of the desktop audio.