Vic Roberts

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About Me:

Honours student at VUW interested in high performance computing and applications of GPU architecture in scientific computation and simulations.

Education:

- **Victoria University of Wellington, School of Engineering and Computer Science**
- Bachelors of Computer Graphics with Honours
  February 2022- Present(Finishes June 2023)
- Bachelors of Computer Graphics (major) and Mathematics(minor)
  February 2019 – November 2021

Communication and Interpersonal Skills:

- Course tutoring for computer science courses leading other tutors and students
- Explored and identified through literature reviews.
- Writing reports and presentations about research software
- Collaborating with researchers based in artificial intelligence, computer graphics and programming languages.

Professional Experience:

- **Research Assistant**
  Computational Media Innovation Centre, Wellington, NZ (February 2023 – Present)
  - Collaborating with a team of key researchers and development staff for an undisclosed project.
  - Conducting survey for state-of-the-art methods for data analysis.

  Summer Scholarship/Research Assistant
  Computational Media Innovation Centre, Wellington, NZ (November 2022 – February 2023)
  - Worked with paper's authors to develop a framework in Unity to survey performance of algorithm output of paper.
  - Kept researchers constantly updated with project status with weekly presentations.

- **Tutor**
  Victoria University of Wellington, Wellington, NZ (July 2020 – November 2022)
  - Assisted university lecturers with engineering and computer science courses.
  - Supervised help-desks assisting students with course topics and assignments and tutorials which revised content of course.
  - Done one-on-one marking with students where I listened to their reasoning on the choices they did in their assignments and communicated on what they could do to improve.
  - Course topics included programming in C/C++, implementation of algorithms and data structures in Java and 3D graphics

  Summer Scholarship/Research Assistant
  Computational Media Innovation Centre, Wellington, NZ (November 2021 – February 2022)
  - Investigated background knowledge of feather structure and geometry generation, which is summarised into a literature review for key researchers of project.
  - Developed Autodesk Maya plug-in that generates feather structure with interactive parameters that update in real-time.
  - Summarised plug-in's features development into report and presentation at end of scholarship.

- **Research Assistant**
  Victoria University of Wellington, Wellington. NZ (November 2020 – February 2021)
  - Worked on Moth, an experimental interpreter for programs written in the Grace language.
  - Worked in a team of developers and researchers in implementing new features and improving software management of interpreter(improving installation process, introducing new tests, adding documentation).

Technical Skills:

- Software Building/Maintenance:
  - CMake, Git
- Languages:
  - Python, C/C++, C#, Java
- Parallelisation Tools:
  - OpenGL, CUDA, Akka
- Data Analysis:
  - NumPy, Pandas, Seaborn, MatPlotLib
- Artificial Intelligence and Machine Learning:
  - PyTorch, DEAP, Scikit-learn

Volunteer Work:

- **SPLASH 2022 Student Volunteer**
  (*December 2022*)
  - Collaborated with sessions' chairs, other student volunteers and conference organizing committee to ensure conference of 500 participants from around world went smoothly.
  - Helped set up technology to assist both offline and online participants and assisted with technical issues during talks.
  - Assisted with video editing for recorded sessions.
- **Pacific Graphics Student Volunteer**
  (*October 2021*)
  - Helped organisers with running the flagship conference of the Asia Graphics Association, which became virtual in 2021 due to COVID-19.
  - Supervised and coordinated online talks(both live and pre-recorded) as a session assistant
  - Supervised online information desk to help guide conference participants.
- **Society for Conservation Biology Volunteer**
  (*July 2022*)
  - Assisted in litter survey at Opau Bay by collecting litter in survey area and counting litter found into a format to be entered into database.
- **Ngā Uruora** – **Kāpiti Project Volunteer**
  (*2021*)
  - Contributed to restoring the native coastal ecosystem in the Paekākāriki Escarpment Track through planting native bush, maintaining Quarry Lizard Garden, and weeding.

References available on request