Vic Roberts

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About Me:

Honours student studying computer graphics at VUW interested in data visualization, scientific computing and performance-oriented graphics.

Education:

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

Technical Skills:

- Languages:
  - C/C++, C#, Objective-C, Java, Python
- 3D Graphics Frameworks/APIs:
  - DirectX12, Metal, OpenGL, Unity
- 3D Software:
  - Blender, Autodesk Maya
- Scripting:
  - Lua, Powershell
- Data Science:
  - DEAP, PyTorch, Scikit-learn

Professional Experience:

- **Research Assistant**
  Computational Media Innovation Centre, Wellington, NZ (February 2023 – Present)
  - Worked with a team of researchers and development staff to develop Unity project that utilized LiDAR data streamed from LiDAR cameras in real time.

  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 paper's algorithm's output.
  - 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.
  - Course topics included programming in C/C++, programming using OpenGL and implementation of algorithms and data structures in Java.

  Summer Scholarship/Research Assistant
  Computational Media Innovation Centre, Wellington, NZ (November 2021 – February 2022)
  - Investigated background research done for feather structure and geometry generation, which was summarised into a literature review for key researchers of project.
  - Developed Autodesk Maya plug-in in C++ to generate feather structure with 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 building process, introducing new tests, adding documentation).

Communication and Interpersonal Skills:

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

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 editing and uploading recorded talks onto ACM SIGPLAN Youtube channel.

- **Pacific Graphics Student Volunteer**
  (*October 2021)*
  - Helped organisers with running the flagship conference of the Asia Graphics Association, which was 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.

References available on request