HEINICH PORRO

heinich.porro@unilim.fr ⋄ heinich11@gmail.com ⋄ (+56)9 869 034 49 ⋄ (+33)6 81 42 15 22 ⋄ +1(206)851-0888

EDUCATION

Université de Limoges — Limoges, France
· Ph.D. in Computer science — *September 2021 - December 2025*
Thesis Project: Dynamic Simulations based on 3D Delaunay Triangulations.

Universidad de Chile — Santiago, Chile
· Master of Science in Computer Science — *Mar. 2020 - May. 2021*
Thesis Project: Delaunay Triangulations for Moving Points Fixed Radius near Neighbors
· Computing Engineering — *Mar 2017 - May. 2021*
· Bachelor of Engineering Science in Computing — *Mar. 2015 - Jan. 2020*

WORK EXPERIENCE

Université de Limoges — *Sept. 2024 - Aug. 2025*
Attaché temporaire d'enseignement et de recherche (ATER) — *Limoges, France.*
· In charge of teaching bachelors courses and continued research activities at the university.

Adobe Inc. — *Jun. 2023 - Aug. 2023*
Research Intern (C++/Python) — *Seattle, WA. USA.*
· Worked in the development of a new module for the internal code of Lagrange, the in-house geometry processing library.

Geophysics Department, University of Chile — *Jul. 2019 - Dec. 2019*
Software Eng./Part time dev. (Javascript) — *Santiago, Chile*
· Worked in a team that developed a web platform to visualize natural disasters. I was part of the design and implementation of a tool to improve decision making in the case of an earthquake.

Synopsys Chile ltda. — *Jan. 2019 - Feb. 2019*
R&D Intern (C++/Python) — *Santiago, Chile*
· Worked in CATS software, fixing coverity issues and improving a gdb tool used to debug geometric algorithms.

Geomechanics laboratory, AMTC — *Sep. 2018 - Dec. 2018*
Research Intern (Python) — *Santiago, Chile*
· AMTC is the advanced mining technology center dependent of the University of Chile.
· In charge of design and implementation of 3D mesh algorithms (mesh slicing variants) applied to sublevel stoping mining planning.

RESEARCH

Master Thesis:
· Porro Sufan, H. S. (2021). Delaunay triangulations for moving points fixed radius near neighbors.

Poster:
· Porro, H., Crespin, B., Hitschfeld-Kahler, N., & Navarro, C. (2022). Fixed-radius near neighbors searching for 2D simulations on the GPU using Delaunay triangulations. In EUROGRAPHICS 2022 (EG 2022).

Short paper:
· Porro, H., Crespin, B., Hitschfeld, N., Navarro, C., & Carter, F. (2023, March). Maintaining 2D Delaunay triangulations on the GPU for proximity queries of moving points. In SIAM International Meshing Roundtable Workshop 2023 (SIAM IMR 2023).

Full paper:
· Crespin, B., Porro, H., Cerbelaud, M., Videcoq, A., & Gerhards, J. (2024). SOMA-BD: Brownian dynamics simulation for soft matter on GPU. Engineering with Computers, 1-14.

DISTINCTIONS

Outstanding student years 2019 and 2020. Awarded by the faculty of Physical and Mathematical Sciences of the University of Chile.

TEACHING ACTIVITIES

Teching assistance at University of Chile:

· Computer Graphics, Design and Analysis of Algorithms, GPU Computing, etc. *2017 - 2021*

Teaching at University of Limoges as a PhD researcher (around 50 hours):

· Unix system programming, Java programming, Concurrent programming, etc. *2022 - 2023*

Teaching fellow (ATER) at university of Limoges (around 180 hours):

· Unix system programming, android development, introduction to programming, etc. *2024 - 2025*

SKILLS

Languages

· Spanish - Native
· English - Proficient
· French - Intermediate