# Valentin Six

+33 610334628 | vsix3@gatech.edu | linkedin.com/in/valentinsix | github.com/valentinsix

### EDUCATION

Georgia Institute of Technology

Atlanta, USA

Master's in Computer Science

2024 - 2025

Machine Learning, Robotics, NLP

Télécom SudParis Master's in Engineering; GPA: 3.74/4; Ranked 14th/216 students Évry, France 2022 - 2024

Lycée Pierre de Fermat

Toulouse, France

"Classe Préparatoire" program for national entry exams to French Grandes Écoles

2020 - 2022

Mathematics, Physics, Engineering

## Research Experience

Research Intern

01/2025 - 07/2025

CEA (Supervisors: Gaël de Chalendar, Evan Dufraisse)

Palaiseau, France

- Developed, a GraphRAG pipeline combining knowledge graphs with LLMs
- Designed a novel retrieval method using decompositional reasoning to improve factual accuracy and efficiency
- Achieved state-of-the-art performance with smaller models and reduced LLM query cost

Student Researcher 08/2024 - 12/2024

Georgia Tech Europe (Supervisor: Cédric Pradalier)

Metz, France

- Applied contrastive learning to learn continuous representations for regression tasks
- Participated in weekly seminars about standard research tools (bibliography, writing papers, presenting results...)

Research Intern 06/2024 - 08/2024

Institut Polytechnique de Paris (Supervisors: Marius Preda, Germain Bregeon)

Paris, France

- Created a synthetic SMPL-based dataset for human segmentation in complex 3D scenes
- Implemented and trained a CNN architecture adapted for mesh objects

#### **Publications**

- Valentin Six, Alexandre Chidiac, and Arkin Worlikar. Evaluating Rank-N-Contrast: Continuous and Robust Representations for Regression. 2024. arXiv: 2411.16298 [cs.LG]. URL: https://arxiv.org/abs/2411.16298.
- Valentin Six, Evan Dufraisse, and Gaël de Chalendar. Decompositional Reasoning for Graph Retrieval with Large Language Models. 2025. arXiv: 2506.13380 [cs.CL]. URL: https://arxiv.org/abs/2506.13380.

#### Other Experience

Under ate

Co-Founder 01/2024 - 06/2024

• Exhibited at VivaTech 2024 (Europe's #1 Startup Tech Event)

Paris, France

- Built an LLM-based text-generation tool for automated equity research reports

Intern 06/2023 - 08/2023

Thales Alenia Space

Toulouse, France

- Built a data-sharing platform for a team of 50 engineers
- Improved access to system documentation

## SKILLS

Machine Learning: PyTorch, TensorFlow, Hugging Face, Transformers

Systems & Tools: Slurm, Git, Jupyter, LaTeX

Programming Languages: Python, C++, Java, SQL