NGUYEN XUAN BINH

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**Summary**

A dedicated and skilled individual with a strong background in data science and computational engineering. Demonstrates a blend of academic excellence and interdisciplinary working experience in different engineering domains. Seeks a Master thesis position to further expand expertise in the Data Science/Artificial Intelligence field.

**Education**

* Bachelor of Science: **Computational Engineering** – 2020 - 2023

**Aalto University**, Espoo, Finland Cumulative GPA: 4.86

* **Languages:** English (proficient), Finnish (basic), Vietnamese
* **Award:** Aalto School of Engineering Dean’s List 2021-2022 and 2022-2023

**Technical Skills**

* Data science: Machine learning, Artificial Intelligence, Business Analytics,

Probabilistic Methods, Deep Learning, Reinforcement Learning

Languages and frameworks: Python, Pytorch, Tensorflow, R, Stan, Julia

* Cloud software and security: AWS, Information Security, Cryptography,

Computer Networks, High-Performance Computing, Parallel Computing

Languages and frameworks: CSC HPC services, Scala, C++, OpenMP

**Experiences**

* Teaching assistant in Artificial Intelligence course (1 - 4/2023)
* Research assistant at Aalto Mechanical Engineering Department (3/2023 - Now):

Conducting material testing, running engineering simulations and writing papers.

* Summer internship advisor in material characterization (6 - 9/2023): Mentored two projects of international interns, guiding them to successfully deliver good results.
* Computational Engineering Project advisor in material optimization (9 – 12/2023): Responsible for advising a graduation project topic for 3 Bachelor-level students.

**Projects**

* [Chat application](https://github.com/SpringNuance/chat_application_GUI-version): software supporting IPv4 and IPv6 network with integrated GUI
* [Abaqus macromechanics](https://github.com/SpringNuance/Abaqus-Macromechanics-Project): Bayesian Optimization of hardening law to fit force displacement curves, which uses CSC service for running simulations.
* [Parallel computing](https://github.com/SpringNuance/Programming-Parallel-Computers): parallelized sorting algorithms, vectorization, GPU utilization
* [Published conference paper](https://www.researchgate.net/publication/370122286_Optimizing_crystal_plasticity_model_parameters_via_machine_learning-based_optimization_algorithms) on applied machine learning in material modeling