

Vuong V. Trinh

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<https://vuongvtrinh.github.io>

EXPERIENCE	Software Engineer, Benjamin Muyl Design Sarl Sep–Dec 2018 <ul style="list-style-type: none">Develop scientific software for computation and optimization of sailing yachts via symbolic framework,Familiar with Python (<i>CasADi</i>), database, bash, version control and unit-testing, Github and Netlify. Research Engineer, Commissariat à l'Énergie Atomique et aux Énergies Alternatives 2014–2017 Supervisors: M. Mazen Alamir and M. Patrick Bonnay, on cryogenic process control and optimization. <ul style="list-style-type: none">Develop explicit constrained control via nonlinear regression and reduced-set support vector machines,Develop hierarchical control coordination via derivative-free optimization and fixed-point iterations,Familiar with Matlab (<i>CPLEX</i>, <i>NLopt</i>, <i>ACADO</i>), C/C++, PLC, SCADA and Modbus, TeX and Inkscape. Research Intern, Grenoble Images Parole Signal Automatique Laboratoire Jan–May 2014 Supervisors: M. Ioan D. Landau and M. Luc Dugard, on robust active vibration control. <ul style="list-style-type: none">Perform system identification, robust control design and experiments using Matlab and xPC Target,Laboratory instructor for the adaptive control course at EECI IGSC'14. Industrial Intern, Yazaki Apr 2011 <ul style="list-style-type: none">Analyse customer specifications, present technical solution, train operators, deliver bill-of-materials,Design, set up and program PLC, HMI and inverter using AutoCAD, Step7 and WinCC.
EDUCATION	M.S. Automation & Control Engineering , Université Joseph Fourier de Grenoble 2014 Mention: good GPA: 15/20 B.S. Automation & Control Engineering , Hanoi University of Science and Technology 2012 Mention: good (<i>Talented Engineer's Program</i>) GPA: 3.17/4.00
AWARDS	Excellence Master Fellowship , LabEx PERSYVAL-Lab 2013 Vallet Scholarship for excellent academic performance , Rencontres du Vietnam 2008
VALORISATION	CS50's Introduction to Computer Science Course Certification , Harvard University via edX Six Sigma and Lean Processional Program Certification , Technische Universität München via edX TUM Lean Six Sigma Yellow Belt Certification , Technische Universität München Semaine d'Étude Maths-Info Entreprises , Agence Maths Entreprises
LANGUAGES	Vietnamese (<i>native</i>) English (<i>fluent</i> : IELTS 6.5) French (<i>basic</i>)
SERVICES	Junior Researcher, Dong A University Research Institute since Jan 2019 Research: anomaly detection algorithms with application to wireless sensor networks. Community Analyst, Blockchain & Cryptoasset Quantitative Analytics May 2018 Research: data-driven analytics of blockchain projects and quantitative trading strategies for crypto-market. Technology: Python (<i>Flask</i> , <i>Django</i> , <i>Pandas</i>), JS (<i>Highcharts</i>), Hugo, Heroku (<i>Postgres</i>), AWS (<i>RDS</i>). Organization Team, Junior Scientist and Industries Annual Meeting Mar 2016

- PUBLICATIONS **V. V. Trinh, M. Alamir, P. Bonnay and F. Bonne, Explicit model predictive control via nonlinear piecewise approximations**, in *Proceedings of the 10th IFAC Symposium in Nonlinear Control Systems*, Monterey, CA, USA, 2016.
- M. Alamir, V. V. Trinh and P. Bonnay, On the stabilization of fixed-point iterations arising in hierarchical control design**, in *Proceedings of the 20th IFAC World Congress*, Toulouse, France, 2017.
- M. Alamir, P. Bonnay, F. Bonne and V. V. Trinh, Fixed-point based hierarchical MPC control design for a cryogenic refrigerator**, *Journal of Process Control*, vol. 58, no. Supplement C, pp. 117-130, 2017.
- V. V. Trinh, K. P. Tran and A. T. Mai, Anomaly detection in wireless sensor networks via support vector data description with Mahalanobis kernels and discriminative adjustment**, in *Proceedings of the 2017 4th NAFOSTED Conference on Information and Computer Science*, Hanoi, Vietnam, 2017.
- V. V. Trinh, K. P. Tran and T. H. Truong, Data driven hyperparameter optimization of one-class support vector machines for anomaly detection in wireless sensor networks**, in *Proceedings of the 2017 International Conference on Advanced Technologies for Communications*, Quy Nhon, Vietnam, 2017.