

Vuong V. Trinh

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<https://vuongvtrinh.github.io>

EXPERIENCE	<p>Research Scientist, Dong A University Research Institute since Jan 2019</p> <ul style="list-style-type: none">• Develop kernel based anomaly detection algorithms with application to sensor networks. <p>Software Engineer, Benjamin Muyl Design S.A. Sep–Dec 2018</p> <ul style="list-style-type: none">• Develop scientific software for computation and optimization of sailing yachts via symbolic framework.• Familiar with Python, CasADi, Bash, version control and unit-testing. <p>Research Engineer, Commissariat à l'Énergie Atomique et aux Énergies Alternatives 2014–2017</p> <p>Supervisors: M. Mazen Alamir and M. Patrick Bonnay, funded by the project ANR CryoGreen.</p> <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, C, LaTeX and Inkscape, cryogenic processes with PLC, SCADA and Modbus. <p>Research Intern, Grenoble Images Parole Signal Automatique Laboratoire Jan–May 2014</p> <p>Supervisors: M. Ioan D. Landau and M. Luc Dugard, on robust active vibration control.</p> <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. <p>Industrial Intern, Yazaki Haiphong Vietnam Apr 2011</p> <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 / inverter using AutoCAD, Step7 and WinCC.
EDUCATION	<p>M.S. Automation & Control, Université Joseph Fourier & Institut Polytechnique de Grenoble 2014</p> <p>Mention: good GPA: 15/20</p> <p>B.S. Automation & Control, Hanoi University of Science and Technology 2012</p> <p>Mention: good (<i>Talented Engineer's Program</i>) GPA: 3.17/4.00</p>
AWARDS	<p>Excellence Master Fellowship, LabEx PERSYVAL-Lab 2013</p> <p>Vallet Scholarship for excellent academic performance, Rencontres du Vietnam 2008</p>
VALORISATION	<p>CS50's Introduction to Computer Science Course Certification, Harvard University via edX</p> <p>Six Sigma and Lean Processional Program Certification, Technische Universität München via edX</p> <p>TUM Lean Six Sigma Yellow Belt Certification, Technische Universität München</p>
LANGUAGES	<p>Vietnamese (<i>native</i>) English (<i>fluent</i>: IELTS 6.5) French (<i>basic</i>)</p>
VOLUNTEER	<p>Organization Team, Junior Scientist and Industries Annual Meeting Mar 2016</p> <p>Community Analyst, Quantitative Analytics and Trading Strategies of Cryptoassets May 2018</p> <p>Research: data-driven analytics of blockchain projects and quantitative trading for crypto-market</p> <p>Technology: Python (<i>Flask, Pandas, Dash, Tkinter</i>) AWS (<i>RDS, EC2</i>) Heroku (<i>Postgres</i>) SQL</p>

- 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.