

# Stanford

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## Andrei Kanavalau

Ph.D. Student in Electrical Engineering, admitted Autumn 2020

### Bio

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#### BIO

PhD candidate in Electrical Engineering at Stanford working across LLMs/Transformers, constrained optimization, and control.

#### EDUCATION AND CERTIFICATIONS

- BA+MEng, University of Cambridge (Pembroke College) , Chemical Engineering (2019)

#### LINKS

- Personal Site: <https://kanavalau.com>

### Research & Scholarship

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#### LAB AFFILIATIONS

- Sanjay Lall, Lall Group (9/1/2020)

### Publications

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#### PUBLICATIONS

- **Safe Explicit MPC by Training Neural Networks Through Constrained Optimization**  
Kanavalau, A., Lall, S., IEEE  
IEEE.2024: 183-188
- **Analysis and Local Convergence Proof of a Constrained Optimization Algorithm for Training Neural Networks**  
Kanavalau, A., Lall, S., IEEE  
IEEE.2024: 839-844
- **Thermal runaway avoidance using Hamilton-Jacobi reachability and model predictive control** *COMPUTERS & CHEMICAL ENGINEERING*  
Kanavalau, A., Lall, S.  
2022; 157
- **Robust thermal stability for batch process intensification with model predictive control** *COMPUTERS & CHEMICAL ENGINEERING*  
Kanavalau, A., Masters, R., Kahm, W., Vassiliadis, V. S.  
2019; 130