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After graduating in mechanical engineering in 2015, I started my PhD research in the Structural Optimisation and Mechanics group at Delft University of Technology. My research aims to apply topology optimisation, a form of structural design optimisation, to the automated design of high-precision optical instruments. This design process is driven by large-scale gradient-based optimisation combined with computational mechanics to find material distributions to optimise a design's performance. During this work, I greatly enjoyed combining numerical modelling with mathematical programming and developing their numerical implementations, bringing me to my current position as scientific programmer at the Computational Science Lab, University of Amsterdam. Nowadays, I focus on developing numerical models with various applications in the field of computational biomedicine. Outside work, I like to go bouldering and tinker with software.

Keywords:
numerical modelling; mathematical programming