



## **Cassandra Wright**

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Research: Analysis of Microstructure  
in a 3D Printed Heat Exchanger

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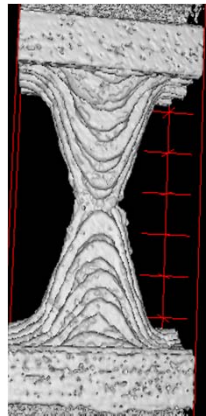
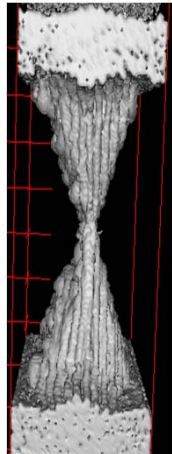
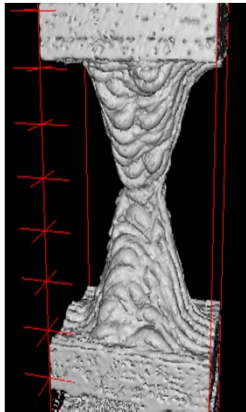
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# Background

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- 3D-printing heat exchangers is becoming a viable manufacturing option
- Various factors contribute to the quality of the print
- Goal: To understand the implications of print quality on thermal and hydraulic performance



# Performance of Wavy Fin Compared to Smooth Fin

- A 2D wavy fin was modeled in order to find a critical ratio of the printed imperfection to the feature size and maintain similar performance

