Q1 Summary And Contributions:

This paper studies the problem of the automated search for optimal neural network architectures. The authors provide a framework for training the surrogate function to increase the diversity and quality of the resulting model.

Q2-1 Originality-Novelty: 3: Good: The paper contributes new ideas.

Q2-2 Correctness-Technical Quality: 3: Good: The paper is technically sound with minor issues

Q2-3 Extent To Which Claims Are Supported By Evidence: 2: Fair: the main claims are supported by evidence, but there are still some facts that have to be proven.

Q2-4 Reproducibility: 4: Excellent: key resources are available and key details are sufficiently well-described for competent researchers to confidently reproduce the main results.

Q2-5 Clarity Of Writing: 3: Good: The paper is somewhat clear, but some details are missing.

Q3 Main Strengths:

- The motivation and the targeted problem is clear.
- Theoretical insightful discussions are provided.

Q4 Main Weakness:

- The diversity measure should be provided clearly as soon as the authors claims that it's the motivation of the research
- There should be more empirical experiments on different setups, comparing the results with state of the art methods for automated model search

Q5 Detailed Comments To The Authors:

More experimental results will be great

Q6 Overall Score: 7: Accept: Solid paper, where reasons to accept strongly outweigh reasons to reject.

Q7 Justification For Your Score:

If more experiments were provided, the score would be higher. It's a solid work with significant ideas

Q8 Confidence In Your Score: 3: Quite confident. I would like to increase the score as soon as new experiments are provided

Q9 Complying With Reviewing Instructions: Yes

Q10 Ethical Concerns:

No.