

Introduction to Computer Science Research Homework 5: Programming Languages, Software Engineering, Formal Methods	CS3950 Spring 2019
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This homework is due at the beginning of class on February 15, 2019 and is worth 3% of your grade.

Name: _____

CCIS Username: _____

Problem	Possible	Score
1	50	
2	20	
3	15	
4	15	
Total	100	

1. We are doing quick paper reviews in class this week. Circle the paper that you are reading in depth for your full review on page 3:

1. *Software protection on the go: a large-scale empirical study on mobile app obfuscation*
2. *Formal certification of a compiler back-end or: programming a compiler with a proof assistant*
3. *When and why your code starts to smell bad*

For the **other two papers that you are not reviewing on the next page**, do a first-pass read (from Keshav's advice), spending no more than 10 minutes on each paper. Then answer the following questions. In each blank, use the number of the paper in the list to indicate the answer to the question for each paper.

1a. What is the *category* of paper? (10 pts)

1b. What is the *context* of the paper? What kind of other work is it related to, and how does the paper analyze problems? (10 pts)

1c. Does the paper appear to be *correct*? What seems to be the way they are demonstrating correctness? (10 pts)

1d. What are the paper's main *contributions*? (10 pts)

1e. Is the paper *clear* and relatively easy to understand? (10 pts)

2. Provide a **summary** of the paper that you chose to read in detail. You must include clearly labeled sections (each with a bold-faced header) named **Motivation**, **Contribution**, **Methodology**, and **Conclusion**. Note that you should provide at most one page of content this and subsequent questions, so your review will be an abbreviated version compared to Fong's recommendations.

Name of paper: _____ (20 pts)

3. Provide a **critique** of the paper. You must include at least two, and no more than three, critiques. Each critique must be clearly identified (e.g., prepending the critique with “First critique:” and “Second critique:” must be well reasoned using objective, as opposed to subjective, criteria. *You cannot include examples that the authors already mention in the paper.* (15 pts)

4. Provide a **synthesis** of the paper. You must include one, and no more than two, idea that describes how the work could be further developed. *You cannot include examples that the authors already mention in the paper.* (15 pts)