## Intellectual Merit Criterion

### Overall Assessment of Intellectual Merit
Excellent

### Explanation to Applicant
The applicant has a strong academic background with considerable undergraduate research experience (2 REUs). The applicant has demonstrated both initiative in being involved in research early as well as the beginning of a good publication record (1 ACM paper + award). The students research plan is well organized with clear goals and a rough timeline. The topic of cloud management is very relevant. The letters of recommendation are fine.

## Broader Impacts Criterion

### Overall Assessment of Broader Impacts
Very Good

### Explanation to Applicant
The applicant has shown excellent initiative in disseminating his own knowledge and experience. The main contribution being organizing and running a large student run computer programming competition (2700 participants). The applicant has been an invited speaker at local school. The applicant seems genuinely interested in building tools that enable others to work more effectively and has won an award already for doing such.

## Summary Comments
The applicant has an excellent academic record and a budding research record. The student has a well formed research topics for his graduate work that he has begun making progress on and has shown significant initiative to disseminate this knowledge through presentations and publications. The applicant is very likely to be a successful graduate student.

## Intellectual Merit Criterion

### Overall Assessment of Intellectual Merit
Excellent

### Explanation to Applicant
Undergrad at University of Massachusetts with gpa 3.92 out of 4.0 Has 1 publication Has worked as a UI designer Has been a research assistant

## Broader Impacts Criterion

### Overall Assessment of Broader Impacts
Excellent

### Explanation to Applicant
Would provide a solution that would be the first high-level programming model for the cloud

## Summary Comments
The applicant plans to build a domain0specific language for distributed systems that relies on formal methods which would allow users to write safe distributed systems with ease. The applicant also explains the process that he would go through in great detail and notes challenges.

# Intellectual Merit Criterion

## Overall Assessment of Intellectual Merit

Very Good

## Explanation to Applicant

Aaron has been learning programming languages for almost a decade. His high school offered a number of CS courses which covered the entire introductory CS courses at his University. He is particularly interested in improving the guarantees and safety of a program language to ensure more security for modern software. He worked the problem of static analysis for a declarative system configuration language. Based on the results, he published one conference paper and won the distinguished artifact award at the same conference.

# Broader Impacts Criterion

## Overall Assessment of Broader Impacts

Very Good

## Explanation to Applicant

Recognizing the importance of secure and correct program, he organized a national CS competition to expose students to the importance of security of the program despite of many possible challenges and errors. He continued the similar efforts after he attended the university. Together with his team, these national CS competitions have attracted several thousand students each time. He also volunteered as mentor for many CS educational programs. Aaron seemed to have a great passion in teaching youth programming knowledge and have been devoting to this effort for many years.

# Summary Comments

Aaron is a highly motivated young scholar who wants to improve the programming experience for software engineers to achieve a better and secure system. He also organized several national programming competition to expose CS to more youth in the nation. He published one ACM conference paper based on a REU project of static verification for a system configuration language. His future plan is to integrate system configuration and programming in a unified programming model which can be applied to a distributed system like Cloud. He aims to design a domain-specific language. However, in his plan, there is a lack of sufficient discussion on the feasibility of such system. Since cloud supports multi-tenant environment, the system configuration of resource management should not be left to the user end due to many reasons such as isolation and security. You may focus on a novel programming model to ease the parallel and distributed programming for a large-scale application for users. It seems more viable. Anyway, as an undergraduate student, his research plan is very good.