

## **NSF Rating Sheets – Franziska Roesner**

### **Rating Sheet 1:**

Overall Assessment of Intellectual Merit: Excellent

Explanation to the applicant: Excellent academic background. Her research experience at Amazon.com involved the design of security systems; as a member of the Computer Architecture and Technology Lab group. Part of this experience led to one publication as a first author. Current research focus: security and privacy for cyber-physical systems. The expected impact of this work lies on the fact that insecure information but vital to the reliable functioning of physical systems is prone to hacking. The potential intellectual merit of her is clearly stated.

Overall Assessment of Broader Impacts: Excellent

Explanation to the applicant: Significant exposure to research as an undergraduate at UT Austin, particularly as a member of the CART group. She clearly states the broader impact of her work; this impact is substantiated by the current trend in securing digital information exchange between physical entities such as power grids. Her tutoring contributions, a TAship in English language, and being a co-founder of the CS Roadshow show that this applicant has not only commitment but leadership abilities.

### **Rating Sheet 2:**

Overall Assessment of Intellectual Merit: Excellent

Explanation to the applicant: The applicant has an outstanding academic and research background as co-author of two top-tier publications, a finalist as CRA's outstanding undergraduate students, and as a liberal arts honor student with highest honors. She has participated in two internships. Her letters of recommendation are outstanding and testify to the strength of the applicant's academic, service and research capabilities and her excellent communication skills.

Overall Assessment of Broader Impacts: Excellent

Explanation to the applicant: The broader impacts of the applicant's previous work and her planned work clearly speak to the contributions that are recognized by the NSF. She has attended several classes in middle schools and high schools to encourage young women to study computing by attending several classes in high schools. She has been involved in tutoring and is co-leader and co-founder of the roadshow. Her research on security will have great opportunity for broader impact.

### **Rating Sheet 3:**

Overall Assessment of Intellectual Merit: Very Good

Explanation to the applicant: The applicant's academic preparation is competitive. The applicant has reasonable research experiences including publication and presentation through the internship at Amazon and other research activities at the school. Although the applicant has remarkable potential as a successful researcher, the application does not clearly describe the research goals, plans, and outcomes.

Overall Assessment of Broader Impacts: Good

Explanation to the applicant: In order to make the application more competitive, the applicant may need to describe in detail how the outcomes of the proposed research could actually make broader impacts on the society. More description about the applicant' previous broader impacts would make the application stronger.