

PLASMA: Practical LABs in Security for Mobile Applications

1 Roles of the PIs

PI Krutz and Co-PI Dean have known each other for approximately ten years, and frequently discuss pedagogical topics. PI Krutz and Senior Personnel Mirakhori have worked together in the Department of Software Engineering at RIT for over three years and have collaborated on two publications [1, 2]. Consultant Richards has been a regular guest speaker in PI Krutz's courses for the last four years. PI Krutz and Senior Personnel Sparkman regularly meet to plan, and evaluate some of the preliminary outreach events and assessment information.

PI Krutz will be responsible for leading the initial module creation efforts at RIT. Senior Personnel Mirakhori and Consultant Richards will provide guidance on which modules should be created and provide feedback on the created modules to PI Krutz. After the modules have been evaluated, PI Krutz and Senior Personnel Mirakhori will work with Co-PI Dean to integrate these modules into the curriculum at RIT and Park University. Senior Personnel Mirakhori will provide guidance to Co-PI Dean during Park University's Cybersecurity curriculum development. Senior Personnel Sparkman will work with other project personnel to collect and share educational findings and ensure that the project is meeting the defined educational objectives.

2 Management Plan

Our collaboration has already been successful due to a number of factors: PI Krutz and Senior Personnel Mirakhori meet in person several times a week to discuss project matters. PI Krutz and Co-PI Dean interact several times a week via emails and phone calls to discuss the project, and how it will be used in collaboration between RIT and Park University. We intend to continue our tradition of regular group web-conferences and in person meetings involving all project personnel and participating students. Interactions will also take place at venues where we are disseminating our work in the form of publications, and through tutorials at various conferences. Furthermore, we will continue our use of cloud-based repositories that allow us to easily share data, papers, and other project results.

Our proposal includes support for outreach events through NC A&T (HBCU) and Women in Computing (WiC) at RIT. To provide guidance to NC A&T, we will work with Professor Chris Doss. We will hold regular Skype sessions to train both Professor Doss, and his student employees on the most appropriate ways to conduct the activities and collect appropriate module feedback. Using WiC volunteers,

we have already conducted several events for WiC students and underrepresented urban High School students in the Rochester, NY area. We will hire one WiC student to be the primary manager of outreach activities, and two other WiC students to help conduct outreach events. Although we will be in regular communication about each event, selecting a WiC student to manage these activities will allow us to delegate these responsibilities and allow the WiC student to gain valuable project management experience.

3 Timeline Highlights

According to the described time line in the project description, we have described a plan for our project, which is dependent on the collaboration as outlined in this document. The modules will be defined, created, evaluated and released in an iterative fashion. This will allow us to receive early feedback on our modules, allowing for their early inclusion both in the classroom and at outreach events. An overview of our module creation process is shown in Figure 1.

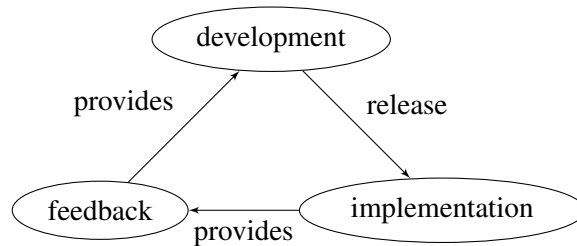


Figure 1: Development Process

References

- [1] D. E. Krutz and M. Mirakhorli. Architectural clones: toward tactical code reuse. In *Proceedings of the 31st Annual ACM Symposium on Applied Computing, Pisa, Italy, April 4-8, 2016*, pages 1480–1485, 2016.
- [2] D. E. Krutz, M. Mirakhorli, S. A. Malachowsky, A. Ruiz, J. Peterson, A. Filipski, and J. Smith. A dataset of open-source android applications. In *2015 IEEE/ACM 12th Working Conference on Mining Software Repositories*, pages 522–525, May 2015.