



GAP NEWSLETTER; OCTOBER 2019

Hello GAP Members!

Welcome to this edition of our bi-annual newsletter. The following are highlights from the past six months.

- **Welcome to all of the 13 new university members that have joined GAP** since April. New members include:
 - Texas A&M University, College Station, TX, USA
 - East Carolina University, Greenville, NC, USA
 - Boteon Chernivtsi, Chernivtsi, Ukraine
 - Massachusetts Institute of Technology, Cambridge, MA, USA
 - The University of Birmingham, Edgbaston, Birmingham, England
 - New Bulgarian University, Sofia, Bulgaria
 - Norwegian University of Science and Technology, Trondheim, Norway
 - Jawaharlal Nehru Technological University, Kakinada, Andhra Pradesh, India
 - Universidad de las Fuerzas Armadas - ESPE, Sagolqui, Ecuador
 - Aswan University, Aswan, Egypt
 - Ben-Gurion University of the Negev, Beer-Sheva, Israel
 - Federal University of Bahia, Canela, Salvador, Brazil
 - Santa Clara University, Santa Clara, CA, USA
- Two university members recently shared **blog posts regarding recent/ongoing projects**. If you would like to contribute a blog on a project that your students are working on, please let me know!
 - [Using Ada for a Spanish Satellite Project](#)
By Juan Zamorano, Universidad Politécnica de Madrid – Jun 18, 2019
 - [Winning DTU RoboCup with Ada and SPARK](#)
By Allan Ascanius, Per Dalgas Jakobsen, Danish Technical University – May 16, 2019
- **Calling all students! The Make with Ada competition is back!** AdaCore's fourth annual Make with Ada competition is underway with over \$8K in cash and prizes to be awarded to the most innovative embedded systems projects developed using Ada and/or SPARK. The contest runs from September 10, 2019, to January 31, 2020, and

participants can register on the [Hackster.io developer platform](#). We hope you will encourage your students to enter! A project submitted by a student is eligible for both the student-only prize (an Analog Discovery 2 Pro Bundle worth \$299.99 USD) and the cash prizes.

- In August, we sent out a brief **GAP survey** to confirm which GAP members are actively teaching Ada and/or SPARK this academic year. Please complete the online survey when you have a minute. This information is important for your students and your school, as our customers continually ask where they can find skilled programmers with knowledge of Ada and SPARK.
- Hopefully, you've had a chance to check out our **interactive learning platform, [Learn.adacore.com](#)**, which is designed to teach the Ada and SPARK programming languages. The site is constantly evolving, so check back often to find new courses, hands-on labs, and easy to understand code snippets that provide students with an opportunity to see, understand, and experiment with the languages' many capabilities.
- **GNAT Community 2019 is here!** This [latest release](#) is supported on the same platforms as last year, but now includes a number of fixes and enhancements, most notably:
 - the SPARK language now has support for pointers, an impressive milestone for the language, and
 - the installer for Windows and Linux now contains pre-built binary distributions of Libadalang, a very powerful language tooling library for Ada and SPARK.
- AdaCore labs have been working for some time on combining the GNAT Ada front-end with a different code generator than GCC. Our current work-in-progress research project is called "**GNAT LLVM**" and is meant to expand the outreach of Ada to the LLVM ecosystem. We just published GNAT LLVM tool sources licensed under GPLv3 on [GitHub](#). If you are interested, give it a try. And let us know how it works for you!
- Ever wished that Ada was more this and less that? Or that SPARK had such-and-such feature for specifying your programs? You're not alone. That's the main reason behind the creation of **RFCs for Ada and SPARK evolution**. The platform is hosted on [GitHub](#), and uses GitHub's built-in mechanisms to allow people to propose fixes or evolutions for Ada and SPARK, or to give feedback on proposed evolutions. We encourage you to participate in this collective effort!
- AdaCore will once again be exhibiting at **SIGCSE, March 11 - March 14, 2020, in Portland, OR**, to share the value of incorporating Ada and SPARK into academic curriculums to help students differentiate themselves in today's competitive job market. If you are attending the show next year, I hope you will stop by our booth to say hello!

As always, please remember, the success of GAP relies on Member participation. **If you are working on an exciting project using Ada or SPARK, please let us know!** We can help you publicize it through our customer newsletter, academic web pages, and technical publications. All we need from you are a couple of paragraphs describing your work, and, if possible, some

accompanying photos. To see a current list of GAP member projects, visit <https://www.adacore.com/academia/projects>.

Thank you for helping us keep Ada and SPARK at the forefront of university study. We truly believe that exposing your students to these state-of-the-art programming languages will help them become more skilled and principled programmers.

If you have any questions, please do not hesitate to contact me.

Regards,

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