



Writing Safe and Efficient C++

The Princeton ACM December meeting will feature an exploration of modern C++ by Bjarne Stroustrup, the designer of the C++ programming language in the 1980s.

You can write awful C++, but you don't have to. You *could* write C++ as we wrote C in the 1970s, but you shouldn't – unless you want 1970s C problems at 2020s scale. Using a combination of solid coding and simple testing, Bjarne has not experienced most of the commonly quoted scary problems in his own code.

Bjarne will explain some of the techniques supported by contemporary C++ that supports safe and performant code: general resource management, error handling, and concept-based generic programming. Note that performance is always a major aim in C++. Only very minor overheads (low single digit percent run-time cost) are necessary to achieve complete type-and-resource safe C++. Many of the most effective C++ coding practices are embedded in the C++ Core Guidelines and supported by major C++ implementations and teaching material.

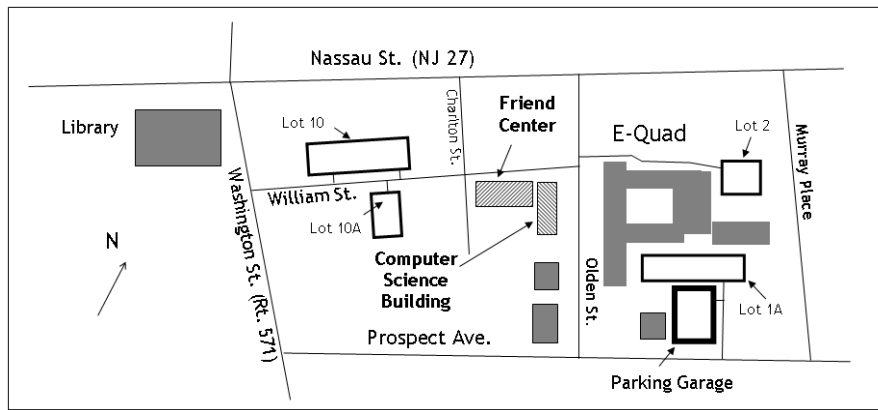
Bjarne will also explain the efforts to guarantee such modern (safe) use of C++ – using one of the latest additions to the C++ Standard: Profiles.

Bjarne Stroustrup is a Professor of Computer Science at Columbia University. Bjarne is the designer and original implementer of C++ as well as the author of *The C++ Programming Language* (4th Edition) and *A Tour of C++* (3rd edition), *Programming: Principles and Practice using C++* (3rd Edition), and many popular and academic publications. Dr. Stroustrup is a member of the US National Academy of Engineering, and he is an IEEE, ACM, and Computer History Museum Fellow. He received the 2018 Charles Stark Draper Prize, the IEEE Computer Society's 2018 Computer Pioneer Award, and the 2017 IET Faraday Medal. He holds a master's in Mathematics from Aarhus University, where he is an honorary professor, and a PhD in Computer Science from Cambridge University, where he is an honorary fellow of Churchill College.

Date:	TUESDAY, December 8, 2026, 8:00pm EST
Place:	HYBRID MEETING (both in-person and online)
In Person:	Princeton University Computer Science Building Room TBA 35 Olden Street, Princeton NJ
How to register for the online meeting:	• Send email to PrincetonACM@gmail.com • OR Register on Meetup.com (http://meetup.com/IEEE-Princeton-Central-Jersey-Section)
Information:	Dennis Mancl (908) 285-1066
On-line info:	http://PrincetonACM.acm.org

All Princeton ACM / IEEE Computer Society meetings are open to the public. Students and their parents are welcome. There is no admission charge, and refreshments are served.

A pre-meeting dinner is held at 5:45 p.m. at Applebee's (3330 US 1, Lawrenceville, near Quakerbridge Mall). Please send email to princetonacm@gmail.com in advance if you plan to attend the dinner.



Parking: After 4pm on weekdays, public parking is permitted in most of the university parking lots near the Computer Science Building.

See the Visitor Parking link on the Princeton Transportation website, <http://www.princeton.edu/transportation/visitors.html>, for a summary of Princeton's policies.

On-street parking on Olden, William, and Charlton requires paying the electronic meters until 8pm.