



Kemper Hall at UC Davis

Professor Karl Levitt founded the **University of California Davis (UC Davis) Computer Security Laboratory ("Seclab")** in 1986. The members of the "Seclab" have pioneered many areas of computer security including:

- First network Intrusion Detection Systems (NSM)
- First distributed Intrusion Detection Systems (DIDS)
- Modeling large scale attacks for IDS (GrIDS)
- First modeling of scenario attacks (Requires/Provides)
- Property-based testing and property-based models of vulnerability analysis

The research conducted by the members of Seclab crosses not only computer science boundaries, but also disciplinary boundaries, including work with political science, government policy, and law. Members of Seclab have entered industry, academia,

and government, and made many contributions to those sectors. Research projects span the entire field, including the use of argumentation in system security analysis, social network and "fake news" security to analyzing e-voting systems and the process of how an election is run.

We teach many computer security-related courses (for graduate students, undergraduate CS students, and non-CS majors), and are doing research in computer security and information assurance education. One such grant is looking at a way to teach secure programming (funded by the National Science Foundation). One of our faculty members co-led an Association for Computing Machinery/The Institute of Electrical and Electronics Engineers Joint Task Force on Cybersecurity Curricular guidelines, resulting in the release of the "Cybersecurity Curricula 2017: Curriculum Guidelines for Post-Secondary Degree Programs in Cybersecurity".

Finally, Professor Matt Bishop published the second edition of his widely-used textbook "Computer Security: Art and Science". It was one of the first textbooks to provide rigor for the field of cybersecurity.

DESIGNATIONS

- CAE – Cyber Defense Education
- CAE – Cyber Defense Research

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UC Davis Cyber Students