CURRENT AND PENDING (OTHER) SUPPORT INFORMATION

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person.

*NAME: Pierce, Benjamin

*POSITION TITLE: Professor

*ORGANIZATION AND LOCATION: University of Pennsylvania, Philadelphia, Pennsylvania, United States

Projects/Proposals

***Project/Proposal Title:** Research Experience for undergraduates in Programming Languages (REPL)

***Status of Support:** current

Proposal/Award Number: CNS-2244494

***Source of Support:** NATIONAL SCIENCE FOUNDATION

***Primary Place of Performance:** University of Pennsylvania

***Project/Proposal Support Start Date: (MM/YYYY):** 02/2023

***Project/Proposal Support End Date: (MM/YYYY):** 01/2027

***Total Award Amount:** $337,095

*** Person Months (Calendar/Academic/Summer) per budget period Committed to the Project:**

Year	Person Months
2024	0.1
2025	0.1
2026	0.1
2027	0.1

***Overall Objectives:** This proposal aims to involve undergraduate students, especially minorities and women, in research experiences with Penn's PL group. Some of the projects may involve property-based testing, but the primary focus is on education -- i.e., getting the students (most of whom will start out with little relevant background) up to speed sufficiently that they can understand research questions and participate in research discussions -- with little expectation of research output.

***Statement of Potential Overlap:** No overlap

***Project/Proposal Title:** SHF: Medium: Property-Based Testing for the People

***Status of Support:** pending

Proposal/Award Number: N/A

***Source of Support:** National Science Foundation

***Primary Place of Performance:** University of Pennsylvania

***Project/Proposal Support Start Date: (MM/YYYY):** 05/2024

***Project/Proposal Support End Date: (MM/YYYY):** 04/2027

***Total Award Amount:** $1,000,000

*** Person Months (Calendar/Academic/Summer) per budget period Committed to the Project:**

Year	Person Months
2025	1.4
2026	1.4
2027	1.4

***Overall Objectives:** This project aims to combine programming-languages and HCI insights and methodology to establish PROPERTY-BASED TESTING as a mainstream software testing method.

***Statement of Potential Overlap:** This proposal

***Project/Proposal Title:** Collaborative Research: Expeditions: Carbon Connect: An Ecosystem for Sustainable Computing

***Status of Support:** pending

Proposal/Award Number: N/A

***Source of Support:** NATIONAL SCIENCE FOUNDATION

***Primary Place of Performance:** University of Pennsylvania

***Project/Proposal Support Start Date: (MM/YYYY):** 02/2024

***Project/Proposal Support End Date: (MM/YYYY):** 02/2031

***Total Award Amount:** $5,000,000

*** Person Months (Calendar/Academic/Summer) per budget period Committed to the Project:**

Year	Person Months
2025	0.5
2026	0.5
2027	0.5
2028	0.5
2029	0.5
2030	0.5
2031	0.5

***Overall Objectives:** The NSF Expedition will improve the environmental sustainability of computer systems by (a) studying challenge applications in artificial intelligence, (b) developing carbon models, (c) designing

systems to mitigate manufacturing carbon, (d) managing systems to mitigate operational carbon, and (e) studying interfaces with economics and policy.

***Statement of Potential Overlap:** No overlap

***Project/Proposal Title:**	VERSE: Verification Engineering for Real-world Software Engineers with GALOIS, INC.
***Status of Support:**	pending
Proposal/Award Number:	HR001123S0020
***Source of Support:**	GALOIS, INC. (DEFENSE ADVANCED RESEARCH PROJECTS AGENCY)
***Primary Place of Performance:**	University of Pennsylvania
***Project/Proposal Support Start Date: (MM/YYYY):**	01/2024
***Project/Proposal Support End Date: (MM/YYYY):**	12/2028
***Total Award Amount:**	$2,199,636

*** Person Months (Calendar/Academic/Summer) per budget period Committed to the Project:**

Year	Person Months
2025	1
2026	1
2027	1
2028	1

***Overall Objectives:** Improving the usability and scalability of proof engineering and automated testing technologies, particularly for software developers that are not experts in formal methods.

***Statement of Potential Overlap:** No overlap

Certification:

When the individual signs the certification on behalf of themselves, they are certifying that the information is current, accurate, and complete. This includes, but is not limited to, information related to current, pending, and other support (both foreign and domestic) as defined in 42 U.S.C. §§ 6605. Misrepresentations and/or omissions may be subject to prosecution and liability pursuant to, but not limited to, 18 U.S.C. §§ 287, 1001, 1031 and 31 U.S.C. §§ 3729- 3733 and 3802.

Certified by Pierce, Benjamin in SciENcv on 2024-02-26 10:50:10