SHARIN RAWHIYA JACOB, Ph.D.

RESEARCH DESIGN AND EXECUTION | COMPUTER SCIENCE EDUCATION

831.444.5557 | sjacob@digitalpromise.org | linkedin.com/in/sharin-jacob | www.sharinjacob.com | Upland, CA 91784

PROFILE

Proven leader in driving strategic growth, securing major external funding, and building national partnerships across **computational thinking, AI, data science**, and **quantum computing**. Blends strategic vision with advanced research leadership to achieve institutional excellence and champion equitable outcomes for diverse learners.

KEY SKILLS

Research Design and Execution | Project Management | Design Thinking | Quantitative and Qualitative Data Analysis | Project Planning | UX Design | Mixed-Methods Research | Data Analysis and Assessment | Stakeholder Management | Product Design | Edtech | Instructional Design | Cross-Functional Communication | Team Leadership | Collaboration | Asana | Slack | Stata

PROFESSIONAL EXPERIENCE

RESEARCHER | Digital Promise | Washington, D.C. September 2024 – Present

- Secured **$1.3M** in active federal NSF grants as Co-PI and developed a robust **$7.45M** future funding pipeline across competitive federal programs and private philanthropies to drive long-term organizational research and impact goals across the nation.
- Led National Science Foundation-funded research-practice partnerships advancing computational thinking, AI literacy, and data science in **7+** school districts across the US, creating scalable frameworks and systems-level approaches to drive nationwide educational equity for all students.
- Designed and facilitated high-impact professional learning workshops, design labs, and research activities supporting computational thinking and AI integration for **70+** educators, significantly strengthening peer learning and long-term systems-level implementation capacity across multiple district cohort initiatives.
- Led advanced mixed-methods research across a portfolio of **9+** active initiatives, including complex survey design and quantitative analysis, surpassing **1,000+** total scholarly citations to guide federal policy decisions.
- Spearheaded a national quantum education agenda, developing **4** major NSF CAREER and ITEST proposals focused on scaling learning pathways, building regional computing hubs across PA, connecting quantum concepts to computational thinking, and evaluating district quantum readiness and capacity.
- Developed systems-level recommendations from a national higher education study with over **120** participants examining institutional integration of AI and emerging technologies across teaching, learning, policy, and infrastructure to guide strategic organizational transformation and future innovation.
- Directed integrated computer science curriculum mappings and teacher professional development designed to serve over **1M+** diverse learners throughout New York City Public Schools, the nation's largest public school system.
- Produced high-visibility practitioner-facing materials including blogs and podcasts translating research into actionable practices.

EDUCATIONAL RESEARCHER | CSforAll | Irvine, CA August 2017 – Present

- Managed and trained **3** teams of researchers and stakeholders to implement computer science curricula in **9** districts influencing **450+** teachers and **50+** educational stakeholders across Southern California, the Midwest, and the East Coast.
- Developed and executed comprehensive project management plans for multi-site projects and research practice partnerships.
- Provided technical assistance and conducted data analysis for launch of **$4.6M** IES and **$1M** NSF-funded research practice partnerships investigating computer science interventions designed for multilingual learners across partner school districts serving **88K** students.
- Developed and executed strategies to secure **$5.6M** in federal funds, developing multilingual learners' computer science skills and identities; expanded curriculum to **5** domestic districts and **1** international district, with official adoption by Boston Public Schools.
- Managed initiative implementation, data collection, and analysis throughout project lifecycle with 90%+ retention across all projects.
- Disseminated high-impact findings across **85+** journals, books, and international conferences.

SHARIN RAWHIYA JACOB, Ph.D.

RESEARCH DESIGN AND EXECUTION | COMPUTER SCIENCE EDUCATION

831.444.5557 | sharinj@uci.edu | linkedin.com/in/sharin-jacob | www.sharinjacob.com |Upland, CA 91784

PROFESSIONAL EXPERIENCE (CONTINUED…)

ENGLISH AS A SECOND LANGUAGE TEACHER | **San Diego High School** | San Diego, CA | August 2007 – June 2010

SELECTED PUBLICATIONS

- **Jacob, S**., Burke, Q., Grover, S., Drozda, Z., & Milenkovic, L. (under review). A systems-level view of data science: Building district capacity for coherent K-12 pathways. Proceedings of the *ACM SIGCSE Technical Symposium on Computer Science Education* (SIGCSE).
- **Jacob, S.**, & Burke, Q. (2026). Coding Foundations, AI Futures: How Districts Built K-12 AI Capacity Through Collaborative Peer Networks. *In Proceedings of the 2026 International Conference on the Learning Sciences (ISLS).*
- Fuhrmann, T., Rabinowitz, G., Peel, A., **Jacob, S**…& Lee, I. (2025). Computational thinking without writing code: What's next for computational modeling? *In Proceedings of the 2025 International Conference on the Learning Sciences (ISLS), Helsinki, FI.*
- Warschauer, M., Tseng, W., Yim, S., Webster, T., **Jacob, S.**, & Du, Q. (2023). The Affordances and Contradictions of AI-Generated Text for Second Language Writers. *Journal of Second Language Writing*.
- **Jacob, S.**, Montoya, J., Nguyen, H., Richardson, D., & Warschauer, M. (2022). Examining the what, why, and how of multilingual student identity development in computer science. *ACM Transactions on Computing Education (TOCE).* [**2022 ACM TOCE Best Paper**]
- **Jacob, S. R.**, Montoya, J., & Warschauer, M. (2022). Exploring the intersectional development of computer science identities in young Latinas. *Teachers College Record, 124*(5) 166 –185.
- **Jacob, S.**, Nguyen, H., Garcia, L., Richardson, D., & Warschauer, M. (2020, March). Teaching Computational Thinking to Multilingual Students through Inquiry-based Learning. In *2020 Research on Equity and Sustained Participation in Engineering, Computing, and Technology* (RESPECT) (Vol. 1, pp. 1-8). IEEE.

SELECTED PRESENTATIONS

- Grover, S., Burke, Q., & **Jacob, S**. (2026). Expanding and Enriching K-12 Computational Pathways with Data Science Competencies [Structured Poster Session]. American Educational Research Association, Los Angeles, CA.
- Burke, Q., & **Jacob, S**. (2026). AI Integration Through CT Pathways: District-Led Strategies for Sustainable K-12 Innovation [Roundtable]. American Educational Research Association, Los Angeles, CA.
- **Jacob, S. R.**, Warschauer, M. (2023, April). Culturally responsive approaches to multilingual students' computer science identity development [Presidential Session]. American Educational Research Association Annual Meeting, Chicago, IL.

PRINCIPAL INVESTIGATOR EXPERIENCE

- 2024-present | National Science Foundation | Pathways to Progressions (P2P) | $1,000,000.00 | Sharin Jacob (co-PI)
- 2015-present | National Science Foundation | Expanding & Amplifying Network Support for K-12 AI Integration| $300,000 | Sharin Jacob (co-PI)

EDUCATION

Ph.D. | *Education: Language, Literacy, Technology*

University of California, Irvine | Irvine, CA

Master of Arts | *Teaching English to Speakers of Other Languages*

Cal State LA | Los Angeles, CA

Bachelor of Arts | *Philosophy with Honors*

San Francisco State University | San Francisco, CA