

Professional Certificate

This is to certify that

Ezra Landa

successfully completed all courses and received
passing grades for a Professional Certificate in

Computer Science Essentials for Software Development

a program offered by PennX, in collaboration with
edX.



A handwritten signature in dark ink, appearing to read "Arvind".

Arvind Bhusnurmath

Lecturer, Department of Computer and Information Science
*School of Engineering and Applied Science, University of
Pennsylvania*

A handwritten signature in dark ink, appearing to read "Chris".

Chris Murphy

Associate Professor of Practice, Department of Computer and
Information Science
*School of Engineering and Applied Science, University of
Pennsylvania*

A handwritten signature in dark ink, appearing to read "S. K. Kannan".

Sampath Kannan

Henry Salvatori Professor and Department Chair, Department of
Computer and Information Science
*School of Engineering and Applied Science, University of
Pennsylvania*

A handwritten signature in dark ink, appearing to read "Swapneel".

Swapneel Sheth

Senior Lecturer, Department of Computer and Information
Science
*School of Engineering and Applied Science, University of
Pennsylvania*



PROFESSIONAL CERTIFICATE
Issued August 2022

VALID CERTIFICATE ID
2a2190461b97426ab8e2b75a5ab14cf1