

Title (en)  
SYSTEMS AND METHODS FOR PRIVATE AUTHENTICATION WITH HELPER NETWORKS

Title (de)  
SYSTEME UND VERFAHREN ZUR PRIVATEN AUTHENTIFIZIERUNG MIT HELFERNETZWERKEN

Title (fr)  
SYSTÈMES ET PROCÉDÉS D'AUTHENTIFICATION PRIVÉE AVEC DES RÉSEAUX AUXILIAIRES

Publication  
**EP 4196890 A1 20230621 (EN)**

Application  
**EP 21856719 A 20210812**

Priority  

- US 202016993596 A 20200814
- US 202117155890 A 20210122
- US 202117183950 A 20210224
- US 202117398555 A 20210810
- US 2021045745 W 20210812

Abstract (en)  
[origin: WO2022036097A1] Helper neural network can play a role in augmenting authentication services that are based on neural network architectures. For example, helper networks are configured to operate as a gateway on identification information used to identify users, enroll users, and/or construct authentication models (e.g., embedding and/or prediction networks). Assuming, that both good and bad identification information samples are taken as part of identification information capture, the helper networks operate to filter out bad identification information prior to training, which prevents, for example, identification information that is valid but poorly captured from impacting identification, training, and/or prediction using various neural networks. Additionally, helper networks can also identify and prevent presentation attacks or submission of spoofed identification information as part of processing and/or validation.

IPC 8 full level  
**G06F 21/00** (2013.01); **G06N 20/00** (2019.01)

CPC (source: EP)  
**G06F 11/004** (2013.01); **G06F 21/32** (2013.01); **G06N 3/045** (2023.01); **G06N 3/08** (2013.01); **H04L 63/0861** (2013.01); **G06F 2221/2133** (2013.01)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**WO 2022036097 A1 20220217**; AU 2021325073 A1 20230316; CA 3191888 A1 20220217; EP 4196890 A1 20230621

DOCDB simple family (application)  
**US 2021045745 W 20210812**; AU 2021325073 A 20210812; CA 3191888 A 20210812; EP 21856719 A 20210812