

PETER THOMASSEN

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PROFESSIONAL EXPERIENCE

- 07/2018– Managing Director, SSE Secure Systems Engineering GmbH, Berlin
previously: Senior Solutions Architect (until 01/2025)
previously: Senior Security Expert (until 08/2021)
- 01/2017–06/2018 Postdoctoral Researcher (Computer Science), Free University of Berlin
- 11/2014– Founder / CTO, deSEC (managed DNS hosting platform focused on security)
- 04/2014–12/2015 CTO, dotHIV
- 05/2011–07/2016 Research Assistant (Physics), Rutgers University, New Brunswick, NJ
- 03/2010–04/2010 Intern, KPMG (Financial Risk Management), Frankfurt
- 09/2001– Founder / CEO, a4a GmbH (web/e-mail hosting, cloud solutions)

ADVISORY AND COMMUNITY POSITIONS

- 09/2025– IETF DCONN Working Group, Chair
- 04/2025– IETF DNSOP Working Group, Secretary
- 03/2025– .eu Multistakeholder Advisory Group, Member (deSEC representative)
- 02/2024– [PQ DNSSEC Research Group](#) (non-chartered), Co-chair
- 08/2023– ICANN RSSAC Caucus, Member
- 02/2023– Internet Namespace Security Observatory (INSO), Advisory Board Member
- 02/2022– ICANN SSAC (Security and Stability Advisory Committee), Member
– Co-chaired DS Automation Work Party / main author of [SAC126](#)

TECHNICAL CONTRIBUTIONS

- 08/2023–07/2024 Post-Quantum DNSSEC Testbed with BIND and PowerDNS
(<https://pq-dnssec.dedyn.io/>)
- 01/2023– DNS4EU Consortium Member (deSEC representative)
- 01/2023–05/2024 [ICANN Root Zone KSK Algorithm Rollover Design Team Report](#)
- 05/2019– IETF / RIPE / ICANN / DNS OARC contributions and presentations
- RFC 9432 (DNS catalog zones)
 - RFC 9615 (Authenticated DNSSEC bootstrapping)
 - RFC 9859 (Generalized DNS Notifications)
 - RFC 9975 (Clarifications on CDS/CDNSKEY and CSYNC Consistency)
 - Public Suffix List DNS Query Service (<https://publicsuffix.zone/>)
 - Internet-Drafts:
 - [draft-ietf-dnsop-ds-automation](#) (RFC publication under way)
 - [draft-huque-dnsop-multi-alg-rules](#) (Multiple Algorithm Rules in DNSSEC)
 - [draft-thomassen-dnsop-mske](#) (Multi-Signer Key Exchange)
 - [draft-fregly-research-agenda-for-pqc-dnssec](#) (PQC DNSSEC agenda)
- 2014– deSEC Managed DNSSEC hosting platform (<https://desec.io/>, ~70k zones)

Vulnerabilities	(unassigned) in nginx: Host header injection (nginx) CVE-2022-42731: in django-mfa2: FIDO2 device registration replay CVE-2019-13177: in django-rest-registration: insecure signature key CVE-2019-13175: in Read the Docs: open redirect
<i>Bug bounties</i>	
08/2019	GitHub (\$1,000): MITM vulnerability in staff email service
05/2026	Perk (<i>tbd</i>): IDOR in booking platform (all bookings publicly accessible)

EDUCATION

09/2012–05/2016	Ph.D. (Particle Physics), Rutgers University, USA / CERN, Geneva, Switzerland Dissertation: „Search for Type-III Seesaw Heavy Fermions with Multilepton Final States using 2.3/fb of $\sqrt{s} = 13$ TeV proton–proton Collision Data“
01/2011–08/2012	M. Sc. (Particle Physics), Rutgers University, New Brunswick, NJ; GPA 3.9
10/2007–09/2010	B. Sc. (Physics), Universität Würzburg, Germany; Grade: 1.3 (excellent)

GRANTS, FELLOWSHIPS AND AWARDS

05/2026	Verisign, for deSEC studying DNS query traffic to bitflip-variant names of the root-servers.net domain (\$25k)
04/2025–04/2027	ICANN Grant Program for deSEC (\$400k)
12/2022	RIPE NCC, Community Projects Fund 2022: Grant for „deSEC: Secure DNSSEC Hosting (Continued Operations and Development)“ (45 k€)
06/2022–07/2024	NLnet Foundation, NGI Assure Grants (total: 83 k€) <ul style="list-style-type: none"> • “Post-Quantum Crypto in DNSSEC” (2022-04-063) for a field study using Falcon, Dilithium2, Sphincs+, XMSS with BIND/PowerDNS • “Authenticated DNSSEC Bootstrapping” (2022-04-100) for finalizing/ implementing RFC 9615
12/2020–	Raised 117 k€ of community funding for deSEC DNS operations infrastructure
08/2019	GitHub Bug Bounty (\$1,000) for MITM vulnerability in staff email service
11/2014–10/2015	Startup competition “Herausforderung Unternehmertum” (deSEC, 1 st , 14k€)
11/2012–10/2015	Ph.D. Fellowship by Foundation of German Business
08/2012–07/2013	NSF US LHC Graduate Student Support Award
01/2011–09/2011	ISAP Fellowship by German Academic Exchange Service (for US exchange)
11/2008–08/2012	Student Fellowship by Foundation of German Business

PRESENTATIONS AND PUBLICATIONS

– invited –

05/2026	Keynote at PQC-Update 2026: “Standardization at the IETF: How to Agree on PQC Protocols” – Fraunhofer AISEC, Garching b. München, Germany
04/2026	“AI and Quantum Computing: Security Impact in Practice” – Security Roundtable im Paulaner, Berlin, Germany
01/2026	“DNS Bitqsquatting – The w00t-servers Experiment” – Guest Lecture, University of Münster, Germany
07/2025	“DNSSEC, die DNS Security Extensions” – Passwort Podcast, Episode 37, heise
05/2025	PQC-Update 2025, Fraunhofer AISEC, Garching b. München, Germany

- 12/2024 [“Automating DNSSEC Bootstrapping with RFC 9615”](#)
– ICANN Webinar on “Automated DNSSEC”
- 11/2024 “AI and Quantum Computing: Looking Ahead in Cybersecurity”
– Swiss National Bank, Zurich, Switzerland
- 11/2024 [“Measuring DNSSEC keying ‘drift’ between parent and child”](#)
– PING Podcast, APNIC
- 10/2024 [“Field Experiments on Post-Quantum DNSSEC”](#) – RIPE 89, Prague, Czechia
- 01/2024 [“How Free is The Internet?”](#) – Interview series, Episode 1
- 09/2023 “Security Challenges for Domain Names” – APTLD 84 (remote)
- 06/2023 “Preparing DNSSEC for Quantum Computing” – M³AAWG 58, Dublin, Ireland
- 05/2023 „deSEC: Ein Einblick“ – BCIX Stammtisch 2023, Berlin, Germany
- 02/2023 „PQ-Kryptografie auf dem Prüfstand: Falcon-512 für DNSSEC“
– PQC-Update 2023, Fraunhofer AISEC, Garching b. München, Germany
- 02/2022 “PSL Access as a Service” – CA/Browser Forum 55, Salt Lake City, UT, USA
- 12/2021 [“deSEC, DNSSEC & Friends”](#) – DDI User Group Gotha, online
- 03/2021 [“Multisigner Support at deSEC”](#) – ICANN 70, online
- *other (select)* –
- 03/2025 Goertzen, J., Melchor, C. A., Huque, S., Thomassen, P., Wisiol, N. (2025). Field Experiments on Post-Quantum DNSSEC. *Real World Crypto (RWC) 2025*.
- 11/2024 “Misguided Warnings of DNS Checker Tools”, ICANN 81, Istanbul, Türkiye
<https://icann81.sched.com/event/1p2Ho/ssac-lightning-talks-3-of-3>
- 08/2024 “DNSSEC Delegation Signer (DS) Record Automation”, ICANN SSAC, [SAC126](#)
- 11/2022 “Multi-Signer Key-Exchange (MSKE)” – IETF 115, London, UK
<https://datatracker.ietf.org/meeting/115/session/dnsop>
- 07/2022 “CDS/CDNSKEY Consistency Is Mandatory” – IETF 114, Philadelphia, USA
<https://datatracker.ietf.org/meeting/114/session/dnsop>
- 06/2022 “Automatic DNSSEC Bootstrapping with Authentication” – ROW 11
<https://regiops.net/row-main/agenda/>
- 05/2022 P. Thomassen, D. Živadinović: “Schlüsselvermehrung: Wie DNS-Multi-Signing die Internet-Sicherheit verbessert”, heise Verlag, c’t 12/2022, p. 126–130
- 11/2021 “Querying the Public Suffix List via the DNS” – OARC 36, online
<https://indico.dns-oarc.net/event/40/contributions/885/>
- 11/2021 “Authenticated Bootstrapping of DNSSEC Delegations” – IETF 112, online
<https://datatracker.ietf.org/meeting/112/session/dnsop>
- 10/2021 3-page newspaper interview on global Facebook outage –
<https://www.berliner-zeitung.de/wirtschaft-verantwortung/facebook-...>
- 09/2018 Thomassen, P. et al. (2018). [Hijacking DNS Subdomains via Subzone Registration: A Case for Signed Zones](#). *Open Journal of Web Technologies*, 5(1), 6-13

HONORARY ACTIVITIES

- 2021 Member of fellowship selection committee at Foundation of German Business
- 02/2019– Board member at deSEC e.V.

09/2017–11/2022 Board member at Cantus Domus e.V. (treasurer)
08/2012–12/2015 Contributor / board member at dotHIV
11/2006–06/2010 Civil service, rescue worker, blood/organ driver at Bavarian Red Cross

MISCELLANEOUS

Languages English (full professional proficiency), German (native), French (basic)
IT OS (Unix/Linux), networking, databases, web, various programming languages
Private interests Singing, traveling, swimming