

BRIEF PROFILE

A results-oriented professional with a unique industrial experience in research and product development environments. Proven track record in strategic and critical thinking as well as high adaptability to changing priorities and requirements to maintain momentum to create the expected impact. Comfortable with stepping out of comfort zone when needed. Seeking a work environment that upholds truth and transparency as part of core culture, sets its employees for success and provides growth opportunities. **Favourite quote:** “We cannot control which way the wind blows, but we can adjust the sails”

WORK EXPERIENCE

Intel Corporation, USA and Turkey

August 2014 - ...

Staff Research Scientist, Wireless Sensing, Oregon - USA

February 2019 - ...

Scope of work & Accomplishments: Research design & planning for WiFi, RFID and mmWave radar, ML model training & testing, data collection, rapid hardware prototyping.

- Created Intel’s largest real-world RFID dataset with 1000 individual tags and making it accessible across the company.
- Influenced the management and got approval to pursue radar research using commercial non-Intel radar hardware.
- Created a novel embedded labelling method for radar thereby saving ~\$100K for Intel Labs.
- Created radar gesture dataset (as a better fit than Google’s Soli dataset) to advance team Israel’s AI research.

Patent Technologist, Autonomous Systems, Oregon - USA

February 2017 - ...

Scope of work & Accomplishments: IP portfolio management, filing decisions on invention disclosures submitted by Intel employees, organize and run idea harvesting and Think Tank sessions and provide guidance to inventors with their invention disclosures.

- Reviewed 1600+ pre-patent drafts to date and provided written feedback and filing decisions to inventors.

Patent Mentor, Patent 101 Workshops Group, Oregon - USA

January 2017 - ...

Scope of work & Accomplishments: Co-organize workshops, mentor inventors in group and one-to-one sessions.

- Created a fully virtual training workshop framework, which is used as the standard Patent101 training since 2020.
- Guided and trained innovation teams in Malaysia and Germany to help them spearhead local Patent 101 Workshops.
- Trained 500+ inventors at Intel using the new framework.

Senior Research Scientist, Human Behaviour Understanding, Oregon - USA

September 2016 – January 2019

Scope of work & Accomplishments: Research design & planning, Python development for data sanitization and analysis, visualization tool creation, field deployment of hardware and software prototypes for data collection.

- Received a [Departmental Recognition Award \(DRA\)](#) for deploying a data collection system in high school classrooms to evaluate learner behaviour.
- Design, implementation, and field deployment of a multi-sensor system for a commercial car and collection of ~500GB of real-world data on a pseudo-autonomous car experience of human subjects. (<https://tinyurl.com/wozcar> for details)

Senior Software Development Engineer, Wearables, Istanbul - Turkey

March 2015 – August 2016

Scope of work & Accomplishments: Embedded hardware and software design and prototyping, customer & partner management, preparing and delivery of demos at industry events to increase Intel’s global exposure in wearables.

- Created the technology inside the world’s first interactive “haute couture” dress (<https://tinyurl.com/intelbutterflies>)
- Created the smart version of Osteoid (<https://tinyurl.com/medicalcast>) with Intel Edison to help patients with cerebral palsy syndrome (<https://tinyurl.com/intelosteoid>).

Senior Software Development Engineer - Contractor, Wearables, Istanbul - Turkey

August 2014 – February 2015

Scope of work & Accomplishments: Embedded C, embedded platform prototyping, demos on Intel embedded SoCs.

- Upgraded and transformed the Istanbul IoT Ignition Lab into a fully functional maker space for collaborating with local start-ups. (<https://tinyurl.com/ignitionlab>)
- Designed and got Ignition Lab’s first Intel Edison breakout board manufactured. (<https://tinyurl.com/edisonbreakout>)

Co-founder & Solution Architect, Embedded Systems

Scope of work & Accomplishments: Provision of technical consultancy to companies in Europe on wireless and embedded systems, engaging with customers to capture pain points & provide bespoke solutions, stakeholder management.

- Designed and implemented the world's first portable automated personnel tracking RFID wearable system (WhizTrack) with wireless backend connectivity. (<https://tinyurl.com/whiztrack>)
- Secured technical consultancy contracts from the UK and Turkey worth \$50K+

Nokta Engineering, Istanbul, Turkey**January 2010 – January 2011**

Senior DSP Architect, Metal Detectors

Scope of work & Accomplishments: Design, C implementation and field testing of the full digital signal processing pipeline as product differentiator, technical advice provision on new products, demonstration of products to customers.

- Successfully implemented company's first functional DSP pipeline and integrated into prototype model "Golden Gate"

Etherstack Limited, London and Reading, UK**March 2009 – December 2009**

Senior Software Engineer, Private Mobile Radio (PMR)

Scope of work & Accomplishments: Embedded programming in C++, focus on APCO P25 standard, implementation, testing and debugging of Man Machine Interface (MMI) and display features.

- Contributed to the FCC certification of one PMR model.

Software Radio Technology plc, Bath and Basingstoke, UK**March 2006 – January 2009**

Software Team Leader, Private Mobile Radio (PMR) – Data Security**July 2006 – January 2009**

Scope of work & Accomplishments: Mapping ETSI TETRA encryption standard into software specifications, software implementation in C, validation, demonstration of encryption features to management and customers.

- Implemented and integrated security modules into 600+ commercial radios for Chinese and Korean customers.

Senior Software Engineer, Private Mobile Radio (PMR) – Data Security**March 2006 – June 2006**

Scope of work & Accomplishments: C implementation of cryptographic algorithms and key management systems in compliance with ETSI TETRA security specifications.

- Successfully implemented and demonstrated the End-to-End encryption for voice on initial prototype radios.

HW Communications Limited, Lancaster, UK**January 2002 – February 2006**

Senior Research and Development Engineer, Wireless Systems

Scope of work & Accomplishments: System design, C implementation, integration & testing, technical proposal preparation to win European and government grants, customer engagement and management.

- Secured company's first ETSI Specialized Task Force (STF) contracts worth \$100K.
- Drafted the "Multimedia Exchange Layer" in section 7.2 of ETSI's Technical Report, [ETSI TR 102 580 v1.1.1 \(2007-10\)](#)
- Received company's first [recognition award from ETSI](#) for my contributions to the TETRA standardization efforts.
- Designed and implemented real-time data acquisition from Welch Allyn medical monitor in flagship Telemedicine project (<https://tinyurl.com/hwtelemed>).

ACADEMIC BACKGROUND

[October 1998 – February 2002] – Doctoral Degree - PhD (Improved Turbo Coding), *Lancaster University, UK*

[October 1997 – May 1998] – Master's Degree - MSc (Signal Processing Applications), *Lancaster University, UK*

[October 1993 – June 1997] – Bachelor's Degree - BSc (Electronics and Telecommunications), *ITU, Turkey*

[August 1990 – May 1992] – International Baccalaureate, *United World College, NM, USA*

~ For a list of my patents & publications to date, please visit <https://tinyurl.com/ctpublist> ~

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