

Alphan Ulusoy, PhD

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Work Experience

Senior Software Engineer – Google, Cambridge, MA, Nov 2019 – Ongoing

Working on OpenTitan, the first open source project building a transparent, high-quality reference design and integration guidelines for silicon root of trust (RoT) chips.

Principal Software Engineer – Mathworks, Natick, MA, Jan 2014 – Oct 2019

- Lead developer of *Bus Element Ports*, a highly visible feature that revolutionized component interfaces and enabled powerful workflows. (C++, Matlab, JavaScript, Python)
- Designed and shipped multiple smart editor actions that boost user experience and productivity by reducing complex & repetitive tasks to a couple of clicks. Resulted in a patent.
- Designed and shipped a JavaScript based block dialog to improve user experience by providing features not available in in-house technologies.
- Refactored legacy code to minimize risk and enable incremental progress.

Intern – Mitsubishi Electric Research Laboratories, Cambridge, MA, May 2013 – Aug 2013

Designed, implemented, and evaluated several model predictive controllers for robust automatic train braking. Resulted in a patent. (Python, Matlab)

Research Associate – Sabanci University, Istanbul, Turkey, Nov 2009 – Aug 2010

Implemented the Residual Bandwidth Estimation Algorithm on a distributed linux testbed for evaluation and demonstration purposes. (C, Bash)

Senior Design Engineer – Vestek R&D Corp., Istanbul, Turkey, Jul 2008 – May 2010

Worked as a member of the register-transfer level group for design, prototyping, and verification of Pixellence II, PixLed, and Pixellence III video enhancement chips. (VHDL, Perl)

Intern – Airbus (formerly EADS), Munich, Germany, Jul – Sep 2006

Implemented a simulation software to evaluate the jamming efficiency of an infrared anti-tank missile jammer. (Matlab)

Education

PhD in Systems Engineering – Boston University, Boston, MA, Sep 2010 – Jan 2014

Dissertation: Optimal Temporal Logic Control of Autonomous Vehicles

MS in Electronics Engineering – Sabanci University, Istanbul, Turkey, Sep 2007 – Aug 2009

Thesis: Design, Implementation and Analysis of Wireless Model Based Predictive Networked Control System over Cooperative Wireless Network

BS in Microelectronics Engineering – Sabanci University, Istanbul, Turkey, Sep 2003 – Jun 2007

Graduation Project: Compact Tracking System

Certifications

Front-End Web Developer Nanodegree – Udacity, Sep 2018

Publications

2 patents, 6 journal articles, 2 book chapters, 12 conference articles, 711 citations.

Activities & Awards

BU Dean's Fellowship, scholarships, teaching and research assistantships, travel awards for conferences, reviewerships in various journals and conferences.

Hobbies & Interestes

Automating things (finance tracker, smart home, daycare photo uploader, taskly, gecko-bot, dev-assist), photography, travel, music, cooking.

<http://www.alphanulusoy.com/resume.pdf>

Last updated: May 5, 2020