

# Farshid Salemi Parizi

I am a senior machine learning engineer at [OctoAI](#). I specialize in Generative AI training and model optimization on a host of hardware. Previously I was a Ph.D. student at the University of Washington, advised by Shwetak Patel in the Ubiquitous Computing (UbiComp) lab. My research focuses on designing novel input solutions and interaction techniques for virtual and augmented reality. Specifically, I explore the design space of input devices that can be used to enable both high-fidelity immersive experiences, everyday productivity and communication tasks.

## Senior ML Engineer

OctoAI  
Seattle, WA

## WEBSITE

<https://farshidsp.com>

## EMAIL

farshidsalemi@gmail.com

## EDUCATION

---

**PhD** Electrical and Computer Engineering, University of Washington  
Advisor: Shwetak Patel  
2016 - 2022

**Master of Science** Electrical and Computer Engineering, University of Washington  
Advisor: Shwetak Patel  
2016 - 2019

**Bachelor of Science** Electrical Engineering with Honor, Sharif University of Technology  
Advisor: Ali Fotowat  
2012 - 2016

## Employment

---

March 2022 - Current **Senior Machine Learning Engineer**, OctoAI, Seattle, WA

Sep 2016 - June 2022 **Ubiquitous Computing Laboratory**, University of Washington, Seattle, WA  
Research Assistant

June - Sep 2020 **Microsoft Research**, Redmond, WA  
Research Intern, Conducted research on novel input solutions for VR/AR

June - December 2019 **Facebook Reality Labs**, Redmond, WA  
Research Intern, Conducted research on novel input solutions for VR/AR

Sep 2018 - Dec 2018 **Limit Inc.**, Newport Beach, CA  
Research Intern, Designing a non-invasive toilet overflow preventer.

April - June 2018 **Limit Inc.**, Newport Beach, CA  
Research Intern, Designing a non-invasive toilet overflow preventer.

June 2017 - Jan 2018 **Limit Inc.**, Newport Beach, CA  
Research Intern, Designing a non-invasive toilet overflow preventer.

# SKILLS

---

- Software Python, C/C++/C#, Android, Matlab, Machine Learning, Discrete and Continuous Signal Processing
- Hardware From scratch Embedded System Development, Digital and Analog Circuits Design, Energy Harvesting, RF circuit design, Signal Processing, Capacitive Sensing Systems, FPGAs, Verilog, PCB design, 3d modeling using Solidworks.

# PEER-REVIEWED PUBLICATIONS

---

- P10 *Glucoscreen: A smartphone-based readerless glucose test strip for prediabetes screening*  
Anandghan Waghmare, **Farshid Salemi Parizi**, Jason Hoffman, Yuntao Wang, Matthew Thompson, Shwetak Patel  
Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies, 2023
- P9 *ARDW: An augmented reality workbench for printed circuit board debugging*  
Ishan Chatterjee, Tadeusz Pforte, Aspen Tng, **Farshid Salemi Parizi**, Chaoran Chen, Shwetak Patel  
Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology, 2022
- P8 *FaceOri: Tracking head position and orientation using ultrasonic ranging on earphones*  
Yuntao Wang, Jiexin Ding, Ishan Chatterjee, **Farshid Salemi Parizi**, Yuzhou Zhuang, Yukang Yan, Shwetak Patel, Yuanchun Shi  
Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems
- P7 *Rotowrist: Continuous infrared wrist angle tracking using a wristband*  
**F Salemi Parizi**, W Kienzle, E Whitmire, A Gupta, H Benko  
Proceedings of the 27th ACM Symposium on Virtual Reality Software and Technology, 2021
- P6 *VIFIN: HARNESS PASSIVE VIBRATION TO CONTINUOUS MICRO FINGER WRITING WITH A COMMODITY SMARTWATCH*  
Wenqiang Chen, Lin Chen, Meiyi Ma, **Farshid Salemi Parizi**, Patel Shwetak, John Stankovic  
*Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2021.*
- P5 *AURARING: PRECISE ELECTROMAGNETIC FINGER TRACKING*  
**Farshid Salemi Parizi\***, Eric Whitmire\*, Shwetak Patel  
**(\*Co-primary authors)**  
*Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2020.*
- P4 *AURA: INSIDE-OUT ELECTROMAGNETIC CONTROLLER TRACKING*  
**Farshid Salemi Parizi\***, Eric Whitmire\*, Shwetak Patel  
**(\*Co-primary authors)**  
*17th ACM International Conference on Mobile Systems, Applications, and Services (MobiSys), 2019*
- P3 *RoyalFlush: Non-invasive Water Level Monitoring to Prevent Toilet Overflows*  
**Farshid Salemi Parizi**, Josh Fromm, Shantanu Deshpande, Shwetak Patel  
Proceedings of the ACM 8th International Conference on the Internet of Things (IoT), 2018

- P2 *CapHarvester: A Stick-on Capacitive Energy Harvesting Using Stray Electric Field*  
**Farshid Salemi Parizi\***, Manoj Gulati\* , Eric Whitmire, Sidhant Gupta, Shobha Sundar Ram,  
Amarjeet Singh, Shwetak Patel  
**(\*Co-primary authors)**  
*Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), 2018*
- P1 *μMonitor: In-situ Energy Monitoring with Microwatt Power Consumption*  
Saman Naderiparizi, Aaron N.Parks, **Farshid Salemi Parizi**, Joshua R.Smith  
IEEE RFID 2016 **Best Paper Nominee (Top 3 papers)**

## PUBLISHED PATENTS

---

- P2 *Test strips for communicating assay data to a touchscreen, and systems for analyzing assay data received at a touchscreen.*  
A Waghmare, SN Patel, **FS Parizi**, J Hoffman  
US Patent App. 18/352,863
- P1 *Toilet Overflow Prevention Systems and Method*  
**Farshid Salemi Parizi**, Josh Fromm  
US Patent US20180371734A1

## PUBLISHED DEMOS

---

- D2 *Demo Abstract: Continuous Micro Finger Writing Recognition with a Commodity Smartwatch*  
Wenqiang Chen, Lin Chen, Meiyi Ma, **Farshid Salemi Parizi**, Patel Shwetak, John Stankovic  
The 18th ACM Conference on Embedded Networked Sensor Systems (SenSys), 2020
- D1 *Demo of AuraRing: Precise Electromagnetic Finger Tracking*  
**Farshid Salemi Parizi**, Eric Whitmire, Alvin Cao, Tianke Li, Shwetak Patel  
32<sup>nd</sup> ACM Symposium on User Interface Software and Technology (UIST), 2019

## REFERENCES

---

- Shwetak Patel [shwetak@cs.washington.edu](mailto:shwetak@cs.washington.edu)
- Joshua R. Smith [jrs@cs.washington.edu](mailto:jrs@cs.washington.edu)
- Wolf Kienzle [wkienzle@fb.com](mailto:wkienzle@fb.com)
- Hrvoje Benko [benko@fb.com](mailto:benko@fb.com)