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## **Inovo Studio**

Founder *2022-Present*

- Stealth - broadly in the area of commercializing advanced research on wearables, IoT, sensing, artificial intelligence and user interfaces

## **Toyota Research Institute**

Technical Lead and Staff Research Scientist

Machine Assisted Cognition Department *2020-2022*

- Co-created and co-lead the new MAC department as technical lead.
- Hired a team of nearly 20 research scientists and managers spanning AI & ML, Behavioral Science and HCI
- Set strategic vision for the department in conjunction with executives
- Guided team execution on use-inspired basic research
- Created and lead the department's IP generation processes

Staff Research Scientist *2019-2020*

- Responsible for implementation of the in cabin user experience for the Toyota LQ - a street legal concept car with L4 autonomous driving capabilities
- Directed more than a dozen contractors across several different organizations to instantiate the Yui agent
- Managed stakeholders across organizations: TRI executives, leadership at the Toyota Motor Corporation, Denso, and creative talent, and a startup providing key technology
- Brought the system up to state of the art NLP capabilities, and guided the different teams on it's usage
- Directed design and engineering resources for the vehicle's augmented reality head-up display. Contribute proof of concept code for sonifying the L4 autonomous capabilities of the vehicle

## **Tesla**

Staff Software Engineer, Infotainment (User Interface) *2017-2019*

- Single-handedly replaced the entire speech and NLP system for all Tesla vehicles
  - Rearchitected the infotainment code base to drastically increase speech control abilities including defining a new API using protocol buffers
  - Upgraded the OS (buildroot), audio system and codebase (C++, Qt, gstreamer) which also involved fixing numerous audio codec issues more broadly
  - Wrote server side code to host our NLP system (Go) and connection to state of the art NLP cloud technology
  - Designed and implemented the NLP intents and entities for speech control of the vehicle

- Created a process and software to enable our internationalization team
- Responsible for infotainment telemetry stream
  - Lead GDPR compliance efforts on telemetry and worked with legal and PMs to set up processes to ensure continued compliance
  - Created first of their kind dashboards about key infotainment usage
  - Used telemetry to drive down cellular costs resulting in a **savings of millions of dollars per month.**

## **Technicolor AI Lab**

Principal Scientist *2015-2017*

- Directly worked with the CTO of the Connected Home Division. Prototyped key IoT technologies and guided products and strategy for the business.
- With a shift in interest to mixed reality, I conducted novel research and advised the business groups on key XR tech.
- Developed and patented key technologies to help replenish the licensing pipeline

## **WatchPop, Inc.**

Co-Founder *2015*

- Co-designed and built a smart watchface for the Pebble Smartwatch.
- After 3 months we reached a 1% install penetration on all Pebble Smartwatches.
- Responsible for architecture and development of the entire product stack including embedded, mobile, cloud backend and data analytics.

## **Yahoo Labs**

Principal Research Scientist, Mobile Research Group *2013-2015*

- Lead mobile research “beyond phones”. Designed and ran key studies around wearable technologies. Implemented prototypes and advised the BU on these technologies and their product time horizons.

## **Nokia Research Center**

Principal Researcher and Team Manager *2013*

- Guided team on IoT and wearable tech development in conjunction with our larger Advanced Engineering division
- Instrumental in CTO’s IoT working group looking for products beyond phones

Principal Researcher *2012-2013*

- Implemented, studied and patented novel wearable computing and IoT technologies
- Developed our cloud IoT backend (python)
- Key demos to Chair of the Board of Directors, CEO and larger executive team

## **Intel Labs**

Research Scientist *2007-2012*

- **Worked directly with Intel’s CTO** to investigate a key technology at the request of the CEO
- Consulted with Intel Capital to provide diligence on novel technologies
- Developed, studied and patented key tech in the spaces of IoT, wearables, and novel sensors.

**College of Computing, Georgia Tech**

Research Scientist 2005-2007

Graduate Research Assistant 1999-2005

Undergraduate Research Assistant 1998-1999

**Intel Research Berkeley** Research Intern 2002

**Charmed Technologies** Associate Scientist 2001

**Western Research Laboratory (Compaq/DEC)** Research Intern 2000

<b>Degree</b>	<b>Year</b>	<b>University</b>	<b>Field</b>
<b>Ph.D.</b>	2005	Georgia Institute of Technology, Atlanta, GA., USA. “Improving Support of Conversations by Enhancing Mobile Computer Input” <i>Advisor: Thad Starner</i>	<i>Computer Science</i>
<b>M.S.</b>	2001	Georgia Institute of Technology, Atlanta, GA., USA.	<i>Computer Science</i>
<b>B.S.</b>	1999	Georgia Institute of Technology, Atlanta, GA., USA. <i>Highest Honors</i>	<i>Computer Science</i>

Other notable achievements include 24 issued patents. Over 50 top-tier peer reviewed publications in the fields of HCI, Wearables, UbiComp and AI/ML. Active in the academic research community and its leadership.