Dhruv Vyas

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INTERESTS

Machine Learning, Deep Learning, Data Analytics, Healthcare Systems, Embedded Systems, Signal Processing, Internet of Things, Ubiquitous Computing, Distributed Computing

SKILLS

- **Programming**: Python, Java, Swift, SQL, C, C++, PHP
- **Cloud**: GCE, AWS
- **Tools**: TensorFlow, PyTorch, Jupyter, Weka, MATLAB, Android Studio, XCode

EXPERIENCE

Postdoctoral researcher, University of Iowa Iowa City, IA
Postdoctoral researcher conducting audiology research *Jan 2023 - present*

Graduate Research Assistant in Mobile Systems Lab, University of Iowa Iowa City, IA
Graduate Research Assistant conducting audiology research *Jan 2017 - Dec 2022*

Data & Operations Research Scientist Intern, Principal Global Investors Des Moines, IA
Graduate intern in Principal Global Investors Data Science team *May 2020 - Aug 2020*

Sr. Embedded System Engineer, Archana Automation Junagadh, India
In-charge of developing company's HMI based automation products *Jan 2014 - Jul 2016*

EDUCATION

University of Iowa Iowa City, IA
Doctor of Philosophy in Computer Science *Aug 2016 - Dec 2022*

Birla Institute of Technology and Science - Pilani - Goa Campus Goa, India
Master of Engineering in Embedded Systems *Aug 2011 - Aug 2013*

Dharmsinh Desai University Gujarat, India
Bachelor of Engineering in Electronics Engineering *Jul 2007 - May 2011*

PROJECTS

- **Measuring hearing outcomes utilizing smart glass, watch, and phone: (Python, Multi-modal ML, Data Analysis, Signal Processing)**
- **Personalization of Over-The-Counter Hearing Aids: (NodeJS, Python, Machine Learning, Reinforcement Learning)**
- **Context Sensitive Audio Sense: mEMA (mobile Ecological Momentary Assessment) for evaluating hearing aids and predicting user success: (Java, Swift, Machine Learning, Android Programming, iOS Programming)**
- **Kiosk App for Over The Counter Hearing Aid Research: (Android Programming, Signal Processing)**
- **Social Network Communication Analysis of Middle School Students: (Python, NLP)**
- **Record and Replay System for Real-Time Operating System: (Zephyr OS, Real-time OS, C)**
- **PHASER - A phase shifting antenna for low powered directional communication: (C, Wireless networking, Antenna designs)**

MISCELLANEOUS PROJECTS

- **Qemu RPi Kernels: (Qemu, Virtualization, Kernal building)**
  - Github repo: dhruvvyas90/qemu-rpi-kernel | 1.9k stars

- **RPi libmodbus: (C, Python)**
  - Github repo: dhruvvyas90/libmodbus | 24 stars

- **Local Chirrrp – UIowa Hackathon Project: (Python, Twitter API, Mapbox API)**
- **EV Charging Station Kiosk: (Python, AWS, RaspberryPi, Arduino, C)**

MISCELLANEOUS

- Member of UIowa's Device Advice (2019-2021) student organization that helps educating modern day technologies to elderly adults
- Active member of Raspberry pi stack exchange (Q & A site) community
- Recipient of merit scholarship (40 % fee waiver) during my graduate studies at BITS - Pilani (Goa).