

Dhanush Bekal

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EXPERIENCE

HAJISHIRZI LAB, UNIVERSITY OF WASHINGTON

Graduate Research Assistant

Seattle, WA

November 2017 – Present

- Use of knowledge graphs in seq2seq models for scientific abstract generation.

LEAP LAB, INDIAN INSTITUTE OF SCIENCE

Project Assistant

Bangalore, India

July 2016 – July 2017

- Developed a **Joint Factor Analysis and SVM** based system for **speaker verification and spoof detection** which had error rates of 4.98% and 3.17% for the two respective tasks. The work was presented at ICASSP 2017.
- Developed a phonetic **deep bottleneck model** based **multilingual speaker verification** system for the NIST 2016 speaker verification challenge. The standalone system achieved an EER of 16%. The work was presented at Interspeech 2017.
- Experimented with **Restricted Boltzmann Machines** and its variants as viable front-end models for unsupervised speaker verification.

ADORI LABS INC.

Digital Signal Processing Intern

Bangalore, India

November 2015 – May 2016

- Developed silence elimination and voice boost filters for an iOS-based audio application.
- Developed a Medium blog to podcast converter using Text to Speech Synthesis APIs.

RAMAN RESEARCH INSTITUTE

Visiting Student

Bangalore, India

May 2015 – November 2016

- Implemented machine learning algorithms on FPGAs for mismatch error correction in high speed Time Interleaved Analog to Digital Converters.

EDUCATION

UNIVERSITY OF WASHINGTON

MS in Electrical Engineering, GPA - 3.83

Seattle, WA

September 2017 – Present

- **Core Courses** – Probability, Digital Signal Processing, Statistical Learning, Conversational AI.
- **Projects** - Audio Beamforming, Noun Recognition from FMRI scans, chatbot for Mental Health Advocacy.

NATIONAL INSTITUTE OF TECHNOLOGY, KARNATAKA

B. Tech in Electronics and Communications Engineering, GPA - 3.67

Mangalore, India

July 2011 – May 2015

- **Core Courses** - Digital Signal Processing, VLSI, Soft Computing, Discrete Mathematics.

SKILLS

- Good research experience in Speech and Language Processing
- Proficient in Python, Matlab, C, Git
- Prior Experience in Perl, VHDL, Kaldi Automatic Speech Recognition Toolkit
- Experienced in using numpy, scipy, keras, pytorch technologies
- Tech savvy can quickly climb the learning curve.

AWARDS

- Placed top 3 in Sonos Challenge 2017.

PUBLICATIONS

- "Factor Analysis Methods for Joint Speaker Verification and Spoof Detection", ICASSP 2017.
- "IITG-Indigo system for NIST 2016 SRE challenge", Interspeech 2017.