Prudhvi Rampey (prudhvirampey.com)

HyperVerge, Inc.
104 1st Street,
Los Altos, CA 94022

prudhvi.rampey@gmail.com
Github: @prampey
Blog: Thinking, Slow
LinkedIn: Prudhvi Rampey

Education **Birla Institute of Technology and Science (BITS) Pilani**, Goa, India
B.E.(Hons.), Electronics and Electrical Engineering July 2015 - May 2019

Work Experience

HyperVerge, Los Altos, California
Media Forensics Link
AI Engineer Sept 2019 - Present

- Developed fine-grained CNN models models to detect physical and digital fraud artifacts on ID documents
- Deployed them to to catch anomalies in high-volume traffic of 15,000 requests/day
- Built a human-in-the-loop data pipeline called **fastdata**, that automates data collection, annotation, visualisation of prediction insights and retraining
- Researched and developed the rendering of realistic 3D augmentations like lighting and blurring effects and variable camera resolution by simulating them in Blender
- Setup a digital forensics portal to spread awareness of the dangers of DeepFake content

MIT Media Lab, Cambridge, Massachussetts
Personalized Active Learner (PAL) Link
Research intern at Fluid Interfaces group Jun 2018 - Jan 2019

- Developed on-device, real-time face recognition for **PAL**, a wearable to help users with personalized and context-aware memory augmentation, language learning and behaviour change.
- Designed fast and offline object recognition with frame rate of 15 fps on a wearable device
- Built a Activity recognition classifier using knowledge graphs to keep track of a person's daily activities
- Designed a modular software architecture to reliably collect, process and share sensor data between wearable components

Defense Research and Development Organization, New Delhi, India
UAV Flight Mission Planning Link
Research intern June 2017 - July 2017

- Used the A-star algorithm to plan the trajectory of a UAV while taking into account fuel constraints and geodetic positioning of restricted airspaces.
- Generated a working model by simulating the whole scenario in a software called Systems Toolkit.

Absentia
Web developer intern Sep 2016 - Oct 2016

- **Whiteboard:** Developed an online interactive collaboration tool to draw, annotate and speak on a virtual whiteboard. Link
- Analyzed video transmission bit-rate and AWS requirements for live streaming 360 video in a concert.

Research Projects	**BrainShift**	[Link]
	Advisor: Veeky Baths	April 2017 - May 2017

- Developed a web-based VR experiment which allows users to locomote using Electroencephalogram (EEG) brainwaves.
- Programmed EEG headset interface to detect eye blinks and a thresholded concentration level in order to execute locomotion.

Other Projects

Student Welfare Division [Link]

Mentor: Biju K Raveendra   Aug 2017 - April 2019

- Isomorphic React-based web app for the Student Welfare Division, BITS Pilani, Goa.
- Built on top of Node.js, Express and GraphQL. Uses modern web development tools such as Webpack, Babel and Browsersync.

Encore [Link]

Nov 2016 - March 2017

- Web-based music player for local area networks, especially in college and office environments.
- Built on Backbone and Express.

The Food King App [Link]

Mentor: Sarathbabu Elumalai   Aug 2015 - Oct 2015

- Developed and designed an Android application which allowed for online food delivery to FoodKing cafes.
- Application was deployed in universities in Chennai and Pilani.

MaterialCon [Link]

Mentor: D M Kulkarni   Dec 2016

- A generic template website for Conferences and Events based on Material Design.

HelpMe! [Link]

May 2013 - July 2013

- HelpMe! is a simple and intuitive emergency app, allowing you to send distress signals to your loved ones in times of danger.
- It sends text messages, GPS location and stealth snaps to your trusties, alerting them of your status quo.

Open Source

- PyTorch Lightning. Added features to their their GPU-based Metrics package
- Contributed to **Mozilla Servo** a modern, high-performance browser engine.
- Setup and contributed to repositories for college development like Student Welfare Division and Encore

Leaderships and Teaching

Open Source Development (OSD) Labs, BITS Goa [FB page]

Founding Member   Sept 2016 - May 2019

It is an initiative to foster open source culture and innovation in BITS Goa. Encouraged college students to contribute to large scale open source projects and simultaneously set up projects and teams to develop campus software infrastructure.

Event organizer

OSDLabs

Organised a "Primer to Git" session to teach students basic concepts of Git. [Link]

Skills   **Languages**: Python, MATLAB, Javascript, Java, Perl, Rust, C, C++, Lua
                Frameworks: PyTorch, Threejs, Streamlit, Tensorflow, TF Lite, Keras, scikit-learn, Nodejs, Mozilla Aframe,
                Technologies: Google Edge TPU, Intel Movidius, Linux kernel, Docker, Travis CI, Vagrant
                          Git, Android, Firebase

Interests   NLP, Digital forensics, Machine learning, Data viz, Deep Learning, Artificial Intelligence, Assistive/Augmentat
                Wearable Technology, Human-Computer Interaction, Cognitive Neuroscience, Reinforcement learning,
                Brain Computer Interfacing, Virtual reality, Web Development and Design, Open Source

References   Prof. Veeky Baths   Mina Khan
                Assistant Professor   Research Assistant
                Department of Biological Sciences   Fluid Interfaces
                BITS Pilani, Goa   MIT Media Lab, MA
                veeky@goa.bits-pilani.ac.in   minakhan01@gmail.com