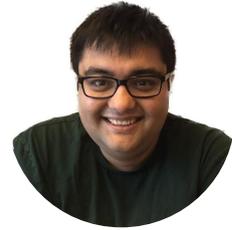


# Abinash Pant

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## Software Engineer | Machine Learning

### PROFESSIONAL EXPERIENCE

- |                                 |  |
|---------------------------------|--|
| Today<br>January 2022           | <b>Software Engineer</b><br>Amazon, AGI - Modeling Services, Aachen, Germany <ul style="list-style-type: none"><li>&gt; Developed deep learning toolkits for Automatic Speech Recognition in Alexa.</li><li>&gt; Led a project to increase code coverage, optimized testing strategies, and reduced costs.</li><li>&gt; Transitioned infrastructure and CI/CD pipeline to SageMaker for efficiency and cost-effectiveness.</li><li>&gt; Automated deployment of neural language models to production.</li><li>&gt; Spearheaded implementation of telemetry for deep learning tools, enhancing usage and cost clarity.</li><li>&gt; Actively shaping engineering advancements for the LLM initiatives.</li></ul> <div style="display: flex; gap: 5px;"><span>Python</span> <span>PyTest</span> <span>TensorFlow</span> <span>PyTorch</span> <span>Sagemaker</span> <span>EKS</span> <span>Docker</span></div> |
| December 2021<br>September 2015 | <b>Software Engineer / Researcher</b><br>BESA GmbH, Munich, Germany <ul style="list-style-type: none"><li>&gt; Conducted independent research on "Developing automatic segmentation algorithms for MRIs of children" as a Marie Skłodowska-Curie research fellow.</li><li>&gt; Conducted research and development for medical research software for EEG, MEG, and MRI analysis.</li><li>&gt; Contributed to the entire product life cycle, from design and development to release.</li></ul> <div style="display: flex; gap: 5px;"><span>Python</span> <span>Theano</span> <span>C++</span> <span>Visual Studio</span> <span>Perforce</span></div>   |
| May 2013<br>August 2011         | <b>Member of Technical Staff</b><br>Spot, Inc., Bangalore, India <ul style="list-style-type: none"><li>&gt; Built a search and organization platform for personal cloud data.</li><li>&gt; Conducted concept development and rapid prototyping.</li><li>&gt; Contributed to the full product life cycle from design and development to app store deployment.</li></ul> <div style="display: flex; gap: 5px;"><span>Objective C</span> <span>Python</span> <span>X-Code</span> <span>MySQL</span></div>   |
| July 2011<br>June 2010          | <b>Software Developer</b><br>MakeMyTrip.com, Gurgaon, India <ul style="list-style-type: none"><li>&gt; Designed and developed back-end services and web-based solutions related to the travel domain.</li><li>&gt; Designed and implemented a Finite-state machine solution to streamline operations.</li></ul> <div style="display: flex; gap: 5px;"><span>C#</span> <span>.NET</span> <span>Microsoft Dynamics</span> <span>RightNow CRM</span></div>  |

### EDUCATION

- |                             |   |
|-----------------------------|---|
| July 2015<br>September 2013 | <b>Masters in Computer Vision</b><br>Université de Bourgogne, Le Creusot, France              |
| April 2010<br>May 2006      | <b>Bachelor of Technology, ECE (Full-ride scholarship)</b><br>NIT Allahabad, Allahabad, India |

### COMPETENCIES

<b>Technical Skills</b>	Python, C/C++, SQL, TensorFlow, PyTorch, SageMaker, Amazon EKS, Docker, Git
<b>Interest</b>	Machine Learning, Software Development, Research, MLOps

## PROJECTS

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### DEVELOPING AUTOMATIC SEGMENTATION ALGORITHMS FOR MRIS

2015 - 2020

BESA GmbH & University of Münster, Germany

Researched and implemented state-of-the-art segmentation techniques for head MRI segmentation. Developed novel 3D CNN techniques for head segmentation. Created a pipeline for generating head models using segmentation for effective 3D head modeling. Validated the developed method and modeling pipeline on a standard dataset. Presented findings at multiple conferences, including an oral presentation

Marie Curie Fellowship MRI Segmentation 3D CNN Deep learning

### MULTI-SCALE PATCH-BASED HIPPOCAMPUS SEGMENTATION

2015

CSIRO Brisbane, Australia

Investigated algorithms proposed in the literature for hippocampus segmentation. Developed an efficient multi-scale patch-based automated pipeline for hippocampus segmentation. Published two papers related to this work.

Master Thesis Travel grant Segmentation Multi-scale Patch-Based

### ASMA (AUTOMATIC SHOPPING MALL ASSISTANT)

2014 - 2015

Université de Bourgogne, Le Creusot, France

Built a robot with capabilities such as voice control, face recognition, visual servoing, and tag detection. Gained in-depth knowledge of robot navigation, control, and vision using ROS and TurtleBot.

Robotics Project Robotics Voice Control Face Recognition Visual Servoing Tag Detection ROS TurtleBot

### HUMAN POSE ESTIMATION FOR THE OPERATING ROOM

2014

IRCAD Institute in University Hospital of Strasbourg, France

Developed a multi-sensor vision system to perceive and model clinician and staff activities in operating rooms. Estimated human poses for radiation monitoring using multiple RGB-D cameras to improve results.

Summer Internship Human Pose Estimation Multi-Sensor Vision System RGB-D Cameras Operating Room

## LANGUAGES

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Nepali	● ● ● ● ●
English	● ● ● ● ○
Hindi	● ● ● ● ○
German	● ● ○ ○ ○
French	● ○ ○ ○ ○

## SCHOLARSHIPS & AWARDS

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- > Marie Skłodowska-Curie research fellow.
- > International travel grant for Master thesis.
- > Full-ride scholarship from the Indian Government.
- > Won multiple technical and coding awards at national-level technical festivals.
- > Lifetime Member of MENSA India.