

Punarjay (Jay) Chakravarty, PhD

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Website: <http://www.jaychakravarty.com>. Google scholar [profile](#). Born: May 23, 1981. Australian citizen. In the US on O-1A visa; Received EAD for EB-1A, 'Einstein visa'. Green card expected Jan 2024.

Objective

To pursue industry-based research and development in Computer Vision, Robotics and Machine Learning.

Work Experience

Staff Machine Learning Engineer for Edge Compute at [Planet Labs](#)

California, USA. 2023-now

I work on bringing Computer Vision and Machine Learning to the edge, for faster processing of Planet's Earth observation Imagery to obtain real-time insights and actionable information.

Technical Leader at [Ford Greenfield Labs](#), Palo Alto (Ford Motor Company)

California, USA. 2017-2022

I was Technical Lead and Senior Manager for a team of PhDs and engineers working on Perception, for Ford's Autonomous Vehicles. I filed [50 patents](#) and worked on advanced proof of concept projects including this [autonomous shuttle](#) and an industry-first system to convert regular Ford vehicles to autonomous operation inside large indoor facilities like parking garages using infrastructure sensing.

I am a reviewer and contributor to premier international CV/ML and Robotics conferences: NeurIPS, ICML, ICLR, CVPR, ECCV, WACV, ICRA and IROS. My full publication list includes more than [40 publications](#).

Post-doctoral Research Fellow at [KU Leuven](#)

Belgium 2013-2017

I was a post-doctoral research fellow at the vision lab at KU Leuven, where I worked on using drones for autonomous film-making. This work resulted in publications at CVPR, ICRA, ECCV, ACCV and other conferences and [~1700 citations](#). This included one of the first works to demonstrate [monocular depth estimation and obstacle avoidance in real-time from a drone](#).

Research Engineer at [Sensen Networks](#)

Australia 2007-2013

At SenSen, I researched, developed, tested & installed commercial-grade systems for surveillance, enforcement and business intelligence using video. I was the tech lead of the [SenForce project](#), a car equipped with cameras and sensors to detect parking violations. SenForce has been successfully delivered to cities in Australia and Europe. I also helped develop and set up software for a system of 80 servers doing video analytics (face recognition, left luggage detection, loitering detection, etc.) for 400 cameras at the Abu Dhabi International Airport (by some estimates, the world's largest video surveillance system at the time).

Education

Monash University (Australia), PhD in Robotics

2005-2010

PhD Thesis: Surveillance and Intervention: Collaboration Between a Robot and Fixed Cameras

I developed a networked, surveillance system comprising a mobile robot and external surveillance cameras.

University of Melbourne (Australia), Bachelor of Engineering with Honors in Electrical Engineering

2000-2004