# JEDRZEJ J. KOZERAWSKI

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#### **EDUCATION**

# University of California Santa Barbara

PhD in Electrical and Computer Engineering Awards: Fulbright Scholarship - renounced

Santa Barbara, CA, USA GPA: 3.85 / 4.0

Expected: 2021

# Poznan University of Technology

MS in Mechatronics Awards: Dean's Scholarship (2014) Poznan, Poland GPA: 4.68 / 5.0 2014 - 2015

Poznan University of Technology

Poznan, Poland GPA: 4.63 / 5.0

**BS** in Mechatronics Awards: Award for the Best Freshman, Dean's Scholarship (2011, 2012, 2013)

2010 - 2014

#### Online education

- PyTorch Scholarship Challenge Facebook (Udacity)
- Neural networks for machine learning University of Toronto (Coursera)
- Artificial intelligence for robotics Stanford (Udacity)
- Artificial intelligence UC Berkeley (EdX)

# **EXPERIENCE**

#### PROFESSIONAL Microsoft Research

#### Research Software Development Engineer

Redmond, WA, USA

Oct '19 - Jan '20

Research in long-tail and imbalanced classification leading towards patent and publication

#### Microsoft Research

#### Computer Vision Research Intern

Redmond, WA, USA Jun '19 - Sep '19

Research in large-scale long-tail image recognition Utilized adversarial training for imbalance datasets

#### University of California, Santa Barbara

Santa Barbara, CA, USA

#### Graduate Student Researcher - Four Eves Lab

- Research in machine learning algorithms for computer vision applications
- Developed novel object classification algorithms for tasks with insufficient training data
- Deep transfer learning for One-Shot / Few-Shot One-Class image recognition

# Samsung Research America

Mountain View, CA, USA

# Computer Vision Intern - Think Tank Team

Apr '18 – Sep '18

Sep '16 - Jun '19

- Object detection and tracking from stereo vision for autonomous driving applications
- Experimental stereo vision setups for autonomous driving applications
- Deep learning for stereo matching and scene segmentation

#### FLIR Systems

Santa Barbara, CA, USA

# Deep Learning Engineer

Jun '17 - Sep '17

- Responsible for creating deep learning methods for pedestrian re-identification from camera images
- Developed deep networks for semantically meaningful people and clothing descriptors
- Deep pose estimation for better pedestrian re-identification

#### Autodesk

Boston, MA, USA

#### Machine Learning Intern

Jun '16 - Sep '16

Oct '15 - Sep '16

- Developed supervised learning algorithms to reflect user preferences in architectural documentation
- Worked on automated object placement in a 2D space
- Unsupervised clustering of architectural views

### University of California, Santa Barbara

Santa Barbara, CA, USA

# Graduate Student Researcher - Intelligent and Predictive Systems Lab

Team leader in National Library of Medicine "Pill Image Recognition Challenge"

Developed machine learning algorithms for network data prediction

Performed unsupervised feature selection and classification of medical data sets

### Institute of Biocybernetics and Biomedical Engineering

Poznan, Poland Jun '12 - Jul '12

#### Research Intern

- Performed scientific evaluation of the clinical usefulness of the designed devices
- Completed 70+ page report analyzing patients data on Huntington Disease

### **TEACHING EXPERIENCE**

#### Stanford University

Stanford, CA, USA

Voluntary Section Leader - CS 106A Code in Place Leading weekly live practical coding sections for students

Creating challenging problems for students

*Apr* '20 – *Now* 

#### **TEACHING EXPERIENCE** continued

#### University of California, Santa Barbara

Santa Barbara, CA, USA *Mar* '20 – *Now* 

Teaching Associate - CS 32 Object Oriented Design and Implementation

- The lead instructor for the CS 32
- Leading lectures, course organization, course materials preparation

#### Teaching Assistant – CS/ECE 181 Introduction to Computer Vision

Jan '20 - Mar '20

- Led discussion sections to explain novel concepts in machine learning
- Helped students with practical implementations of algorithms and their theoretical understanding

#### Teaching Assistant – CS 165B Machine Learning

Jan '19 - Mar '19

- Led discussion sections to explain novel concepts in machine learning
- Helped students with practical implementations of algorithms and their theoretical understanding

#### Teaching Assistant – ECE 152A Digital Design Principles

Jan '16 - Mar '16

- Led computer labs classes where student designed and implemented electronic circuits
- Created and graded homework assignments and practice exercises

#### **GIVEN TALKS**

"Explaining concepts visually: a novel approach for general object recognition" – at UCSB Dynamical Neuroscience seminar, Nov 2018

"Explaining concepts visually: continuous AI learning" - at UCSB CS Summit, Mar 2018

"SVM Transfer Learning for Object Recognition" - at UCSB Society for Industrial and Applied Mathematics, Mar 2017

PUBLICATIONS [1] CLEAR: Cumulative LEARning for one-shot one-class image recognition J. Kozerawski and M. Turk IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2018

> [2] HALT: Hallucinating Adversarial Images for Long-Tailed Datasets J. Kozerawski, V. Fragoso, N. Karianakis, G. Mittal, M. Turk and M. Chen In Submission

**SKILLS** 

Python, PyTorch, Caffe, TensorFlow, OpenCV, Linux, C++, C, Git