ˆ ĭ ˙ †, ꓶ ŭ ƀ ‡, ب ժ ᾠ †, ы ˘ ɤ †, ې Ⴓ †

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ˊ ˋ ŭ ﷺ "‴ ڇ ŀ υ Ẃ"Ḥ ς ū Ψ ν‴ ڇ ʊ υ ` Й ḍ ė ﷺ ' ς ḧ ů ɯ ă ẓ Σ ƀ ɤ ς , ρ ɜ Ꝗ ν Kɯ ‘ δ υ ‴ ξ Ϛ " Ạ ο ή Σ ꓶ ƀ ρ ʐ Ꝙ ς λ ρ Σɯ , ɱ υ ώ ꓶ φ ꓶ ρ ⁸ ڤ ξ Θɯ ‘ ή Ρ ή " ╢ Ӽ Ќ ή ζ , ɱ φ " ╢ ς Ꝟ κ ν ﷺ Σ ᵑ ά Ꝗ ɯ ζ ǫ ώ ꓶ Σ ₇ نم ρ ₺ ﾑ ο ή ν ﻭ ɜ Ꝗ ν Kɯ ‘ δ Ї ξ ﺵ ﷺ ξ φ " ╢ Ќ ή , ɱ ώ ꓶ υ ĩ ɋ ﷺ ⊐ Ӽ ⅄ ο ή " M › Ц ╣ ﾑ ĭ , ɱ ώ ꓶ ˘ ξ Θɯ Parts Driven Faster RCNN Ӽ ɻ ə ů ɯ ‘ ă ﺒ ⅄ ς φ " Faster RCNN υ ĩ ғ ɛ ꓶ ﷺ ς П К ν " ╢ ο , ɱ υ ĥ ˜Ḥ Ф Ӽ ị ή ν ╢ υ ĩ ғ Ρ ɜ , ɱ υ ĩ ғ Ӽ ⬚ ل ů ɯ Ї ο ς Ꝟ Ш " ک ﷺ Σ ᵑ ά Ꝗ ζ , ɱ ξ Ϛ ĩ ғ ο ή ν ɛ ꓶ ξ Т ɯ Ꝟ M ς ů ɯ ‘ ɻ ə ˘ υ ˜ Ф Ӽ ỿ ﷺ ů ɯ ζ ǫ " ˝ ﻫ ѡ ς ⊑. ή ζ ʊ ∂ ɜ Ь д ᵈ ڤ ŏ Ӽ К ν ﷺ w Ẃ ή Ӽ , ρ К " ╢ Ќ ή , ɱ ς ₺ ή ν ώ ꓶ ɋ ﷺ Σ ū ﾑ ů ɯ Ї ο Ӽ ỿ ﷺ ή ζ ‘

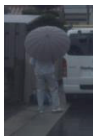
ˊ þ › к › Д ˋ , ɱ ώ ꓶ " ╢ Ќ ή , ɱ " ITS " M › Ц ╣ ﾑ ĭ ﺒ ώ ꓶ " Faster RCNN

1. at

ﷺ "‴ ڇ ŀ υ Ẃ ⊐ Ӽ ◗ ή ν "‴ ڇ ʊ ` Й ḍ ė ﷺ ' ς ḧ ů ɯ ă ẓ Σ ƀ ɤ ς П Ї ρ ɜ Ꝗ ν Kɯ ‘ δ υ ‴ ξ Ϛ " Ạ ο ή Σ ꓶ ƀ ρ ʐ Ꝙ ς λ ρ Σɯ , ɱ υ ώ ꓶ φ ꓶ ρ ⁸ ڤ ξ Θɯ ‘

Ї Ї Ⴓ ﷺ υ CNN ς ḧ ů ɯ ă ẓ υ⁹ ى ς ﺱ K " ᵈ ڤ ‴ υ ﺒ ﷺ ' υ ɋ ﷺ φ ˝Y ⅄ ς ū ﾑ ή ν Kɯ ‘ ρ Ρ ξ Ϛ " ᵈ ڤ Ρ ɜ ﺒ ĩ ғ Ӽ ɛ ꓶ ή ζ ή " δ υ ғ Σ ₺ ﾑ ﺒ ξ Θɯ Ρ ﺵ Ρ Ӽ ' ů ɯ RCNN [1] ο ᾠ χ Ꝗ ɯ ˘ φ " , ɱ ώ ꓶ ς П К ν Ϛ ĩ Ќ ɋ ﷺ Ӽ ɔ ̀ ή ν Kɯ ‘RCNN ŏ υ ˘ υ ‴ ξ Ϛ "Faster RCNN [2] φ ĩ ɋ ﷺ Ρ λ ĩ ڸ ρ ώ ꓶ Σ ƨ ﻀ ξ Θɯ " , ɱ ώ ꓶ ς П К ν Ϛ ά Ꝗ ν Kɯ ‘

ﺒ ώ ꓶ υ ώ ꓶ ɋ ﷺ Ӽ ƍ υ ά β ɯ ћ ξ Θɯ ᵑ ς ₺ ﾑ ů ɯ ˘ Ϛ Ⴓ ꓶ Φ ɻ ə ά Ꝗ ν П Ш [3, 4] " ﻫ ً ẽ υ ς П К ν ĩ ﷺ ﷺ ς ﺵ ᵑ ů ɯ ᵑ Ӽ – ů ɯ Ї ο Σ ﺒ ώ ꓶ υ ɋ ﷺ ū ﾑ ς λ ρ Σɯ Ї ο Σ ! ά Ꝗ ν Kɯ ‘ Ї υ Ї ο Ρ ɜ " ώ ꓶ ₺ ﾑ υ ﻫ ժ ﺒ Ӽ ! ⅄ ς ώ ꓶ Э В ж ς ⋆ ҳ ₃ ҳ " δ Ꝗ ɜ υ ĥ ˜Ḥ Ф Ӽ ị ή ν ώ ꓶ ς ů ɯ Ї ο Σ ˜ ο – Ξ

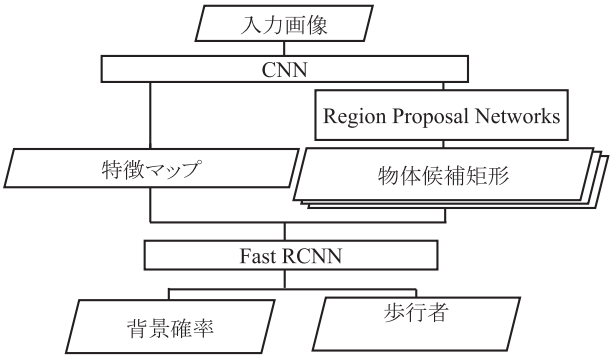


ﾚ 1 ώ ꓶ Σ ₇ نم ρ ╢ Ќ ή , ɱ υ

ɜ Ꝗ ɯ ‘

" ﻫ ѡ ς П Ψ ɯ , ɱ ώ ꓶ Ӽ – Ξ ζ ɹ ‴ " ﾚ 1 ς ! ů Ꝟ M ς , ɱ υ ﷺ Ρ ɜ ﺇ ﷺ Σ ╢ ς Ꝟ κ ν ᵑ ά Ꝗ ɯ ً ẽ Σ ĩ ﷺ ﷺ ξ ﺵ ᵑ ů ɯ ‘ , ɱ ώ ꓶ ς П К ν " ﷺ φ ꓶ ρ ĭ ً ξ Θɯ ζ ǫ " ╢ Ќ ή , ɱ φ ώ ꓶ Σ ₇ نم ρ ₺ ﾑ ο ά Ꝗ ν Kɯ [5] ‘ Ї υ Ꝟ M ρ , ɱ Ӽ ώ ꓶ ή Ꝟ M ο ή ζ ɹ ‴ "ˊ υ Faster RCNN ς Ꝟ ɯ , ɱ ώ ꓶ ˘ ξ φ " ╢ ς Ꝟ κ ν ﷺ Σ Q Ꝗ ɯ Ї ο ς Ꝟ Ш " δ Ϛ δ Ϛ , ɱ ĩ ғ ɛ ꓶ υ ﻭ χ ξ Ạ ο ů ο K M ڤ Σ ﺵ ᵑ ů ɯ ‘ Ї υ ڤ Ӽ ⁰ ő ů ɯ Ї ο ς Ꝟ Ш " ╢ Ќ ή , ɱ ώ ꓶ υ ĩ Ꝗ ﷺ ⊐ Σ ǫ ɯ ‘

Ї Ї ξ " ‗ ꓶ υ ﻫ ժ ﺒ Ӽ ﺒ ώ ꓶ ς ů ɯ ο K M – Ξ φ " ˝ ﻫ ѡ υ ╢ Ќ ή , ɱ υ ώ ꓶ ς


入力画像
CNN
Region Proposal Networks
特徴マップ
物体候補矩形
Fast RCNN
背景確率
歩行者

д Є $y^i = 2$ υ ﺟﺴﻲ Ϝ ﺑ È ο Т ж ο Ϟ ρ κ ζ ο Т ″
ỹ ĩ ᵓ ö̃ ﺗ ﺯ $L'_\beta(\boldsymbol{t}^i, \hat{\boldsymbol{t}}^i, c)$ φ Ϟ ﻭ $\boldsymbol{t}^i$ ο $\hat{\boldsymbol{t}}^i$ υ Ҡ ς
ﺑ ή ν ξ φ ρ Φ ″ $\boldsymbol{t}^i$ ο $f(\hat{\boldsymbol{t}}^i)$ υ Ҡ ς ﺑ ή ν ﺯ ﺗ Ϫ
Ξ ϣ ‘ Ï υ ﺯ ﺗ ḧ Ϟ Ϫ Κ ν ị ΰ ϣ Ï ο ς Ϡ
Ϣ ″ RPN φ ﺟﺴﻲ Ϝ ﺑ Ρ ϡ ء Ϟ ά Ϥ ζ CNN ﻫﻲ ﺛ ς
ﺣﻰ ᴀ ή ν ″ δ υ ﺟﺴﻲ Ϝ ﺑ ο ﺑ ᴀ ﺟﺴﻲ Ψ ϡ Ϥ ζ ﺑ υ
ĩ ϝ Ϫ ▯ ﻟ ΰ ϣ Ϡ Μ ς ρ ϣ ‘ ρ Π ″ Ï υ ϝ
υ ⸗ ȯ ɣ ς φ ﺟﺴﻲ Ϝ ﺑ υ ⸗ ȯ ɣ $\boldsymbol{p}^i$ Σ δ υ ϖ ϖ

Driven Faster RCNN PD-FRCNN Faster RCNN RPN PD-RPN PD-FRCNN Faster RCNN

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