Your name and your student number: Petar Paskalev - 232725

Your mentor: Jason Harty

The student number of the person you are reviewing: - 234838

Your mentor will give you the masks you need to review (15 masks from one student). Find the images corresponding to these masks from the Y2B\_24 dataset. Run the **task 1 requirements.ipynb** notebook to check if the labels satisfy the requirements. Note down your feedback in the format provided below. For requirements 1-4, check whether the tests pass or not. For failing tests, note down the reason briefly. For requirement 5, list all the mistakes you detect.

Question 1. The student submitted 15 masks: Yes/No, if no, list the missing masks.

#### 1. Name of the image file: val\_Jason\_234838\_im1

	Shoot Mask	Seed Mask	Root Mask
Req 1 Name	PASS	PASS	PASS
Req 2 Shape	PASS	PASS	PASS
Req 3 Binary mask	PASS	PASS	PASS
Req 4 0/1 foreground	PASS	PASS	PASS

**Requirement 5** To assess the label quality, you need to overlay 3 masks with 3 different colors onto the image. The code to achieve this is in the <u>task 1 requirements.ipynb</u> notebook. Use screenshots from the overlay with arrows to indicate the locations of the errors. Note that your peers should be able to find the error, so describe the location of the error as clearly as possible.

**Note:** If a requirement from 1-4 fails, you might need to fix the issue before plotting the overlay. For example, the masks must be binary with pixel values 0 or 1. If the submitted mask is binary but the pixel values are 0 or 255. Before plotting the overlay image, you need to normalize the mask to 0-1.

Here are some error types:

- Missed Roots Roots that should be labeled are not labeled.
- **Incorrect Root Labeling** Non-root areas are labeled as roots.
- Missed Seeds Seeds that should be labeled are not labeled.
- Incorrect Seed Labeling Non-seed areas are labeled as seeds.
- Missed Shoots Shoots that should be labeled are not labeled.
- Incorrect Shoot Labeling Non-shoot areas are labeled as shoots.
- **Incorrect Root Border** Roots are labeled thicker/thinner than they actually are.

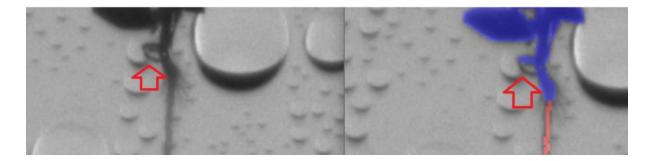
- Other Miscellaneous Labeling Errors Any other errors not covered by the above types.
- 2. Name of the image file: val\_Jason\_234838\_im2

	Shoot Mask	Seed Mask	Root Mask
Req 1	PASS	PASS	PASS
Req 2	PASS	PASS	PASS
Req 3	PASS	PASS	PASS
Req 4	PASS	PASS	PASS

### **Requirement 5:**

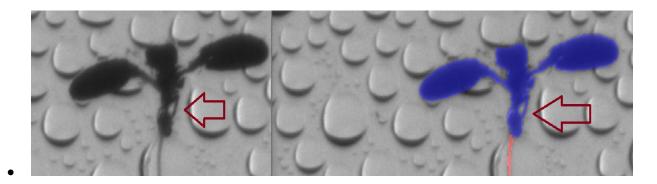
• **Incorrect Shoot Labeling** - Non-shoot areas are labeled as shoots(I talked with Alican he said: "That is a parasite".



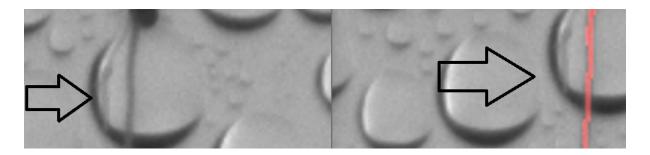


- Missed Seeds Seeds that should be labeled are not labeled.
- Incorrect Shoot Labeling Non-shoot areas are labeled as shoots.

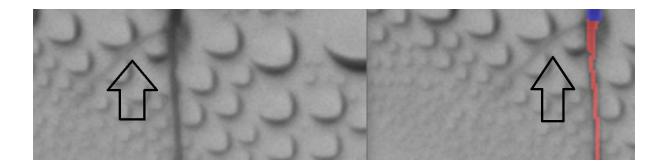
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• **Missed Roots** – Lateral roots that should be labeled are not labeled.



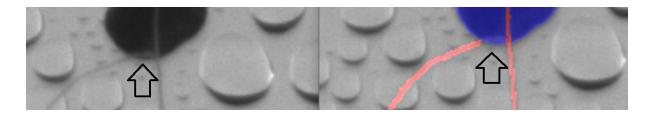
• **Missed Roots** – Lateral roots that should be labeled are not labeled.



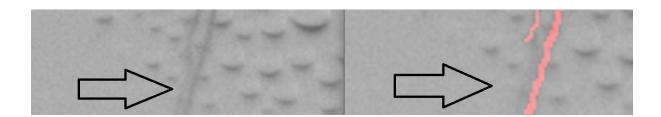
3. Name of the image file: val\_Jason\_234838\_im3

	Shoot Mask	Seed Mask	Root Mask
Req 1	PASS	PASS	PASS
Req 2	PASS	PASS	PASS
Req 3	PASS	PASS	PASS
Req 4	PASS	PASS	PASS

Requirement 5
Missed Roots — Lateral roots that should be labeled are labeled as shoot



• Missed Roots – Lateral roots that should be labeled are not labeled.

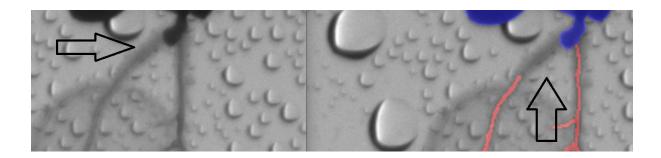


# 4. Name of the image file: val\_Jason\_234838\_im4

	Shoot Mask	Seed Mask	Root Mask
Req 1	PASS	PASS	PASS
Req 2	PASS	PASS	PASS
Req 3	PASS	PASS	PASS
Req 4	PASS	PASS	PASS

## **Requirement 5**

• **Missed Roots** – Lateral roots that should be labeled are not labeled.

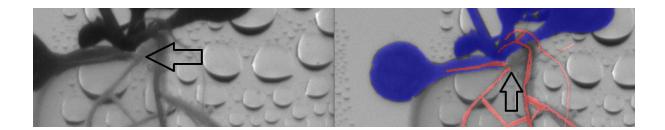


5. Name of the image file: val\_Jason\_234838\_im5

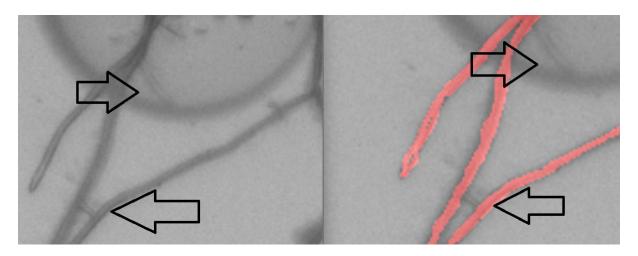
	Shoot Mask	Seed Mask	Root Mask
Req 1	PASS	PASS	PASS
Req 2	PASS	PASS	PASS
Req 3	PASS	PASS	PASS
Req 4	PASS	PASS	PASS

### **Requirement 5:**

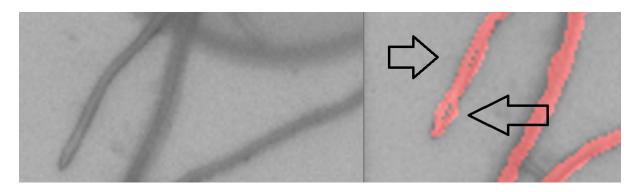
• Missed Roots – Lateral roots that should be labeled are not labeled(if that long line is a root you should at least connect it).



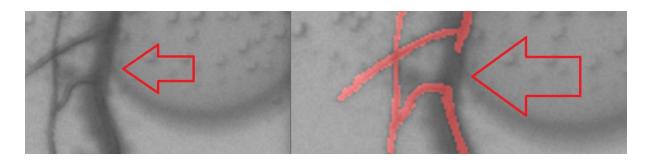
• Missed Roots – Lateral roots that should be labeled are not labeled



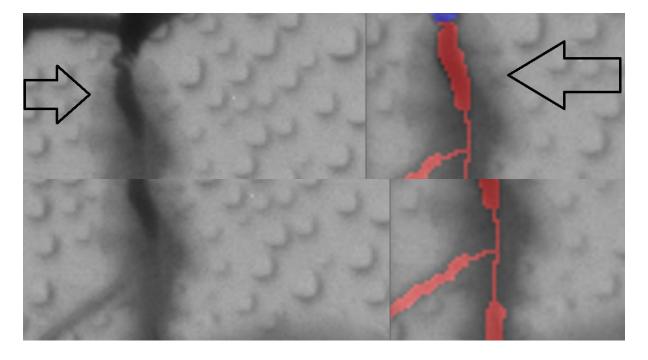
**Missed Roots** – Roots should be labeled entirely.



• Missed Roots – Roots that should be labeled are not labeled



Missed shoot – The label should be shoot but it is a root on this one also bellow the line is way thinner and then extends again.



Overall really good there is some missed spots mainly of roots that can be easily fixable.