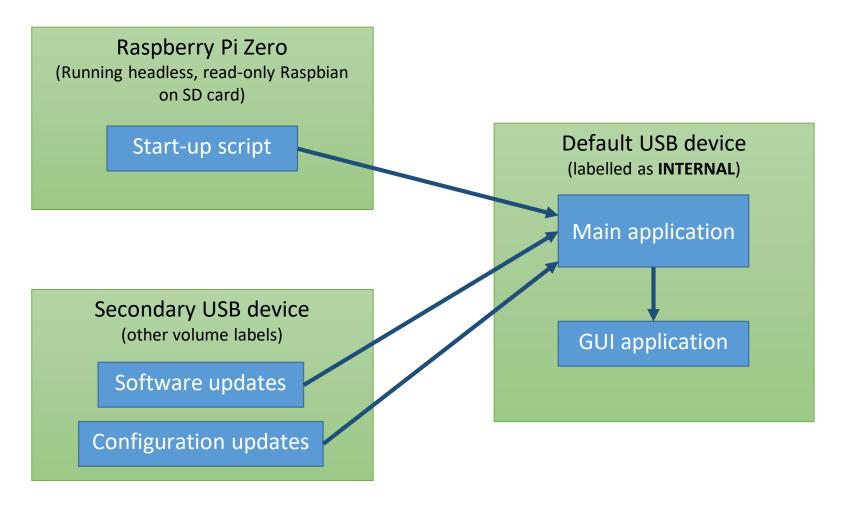
Software high-level architecture



UML diagram of GUI application Spectrometer DataStorage Main +integration time: integer +default storage dir: String +detected spectrometer: string tuple +main(): integer -detect_USB_drive(): integer +save on internal(): integer +set integration time(): integer -update software(): integer +copy to external(): integer +get spectrum(): array -start GUI(): integer +save config to file(): integer -detect spectrometer(): integer -update configs(): integer HardwareInterface -batt status LED: integer -activity status LED: integer Logger -shutdown button: integer GUI +trigger pressed: boolean +default log dir: String +default log file: String +screen size: integer tuple +detect button trigger(): boolean +show batt status(): integer +save_log_to_file(): integer +initialize(): *integer* +show activity status(): integer +render GUI layout(): integer +touch_event_listener(): integer +hardware_trigger_listener(): integer +display frame with FoV(): integer RTC Configurations(YAML) +show location(): integer +default I2C addr: integer +default yaml file: String +show datetime(): integer -real time: datetime -all configs: String tuple +update_batt_status(): integer +save_data(): integer -parse RTC(): integer -parse yaml file(): integer +export config(): integer +get_time_update(): datetime +get config(): String tuple **GPS** Camera +default input port: String Power +default input port: String -gps value: float tuple -battery_status: *float* -initialize camera(): integer -parse GPS(): integer -read camera frame(): integer +get battery status(): float +get gps value(): float tuple +get_camera_frame(): numpy array