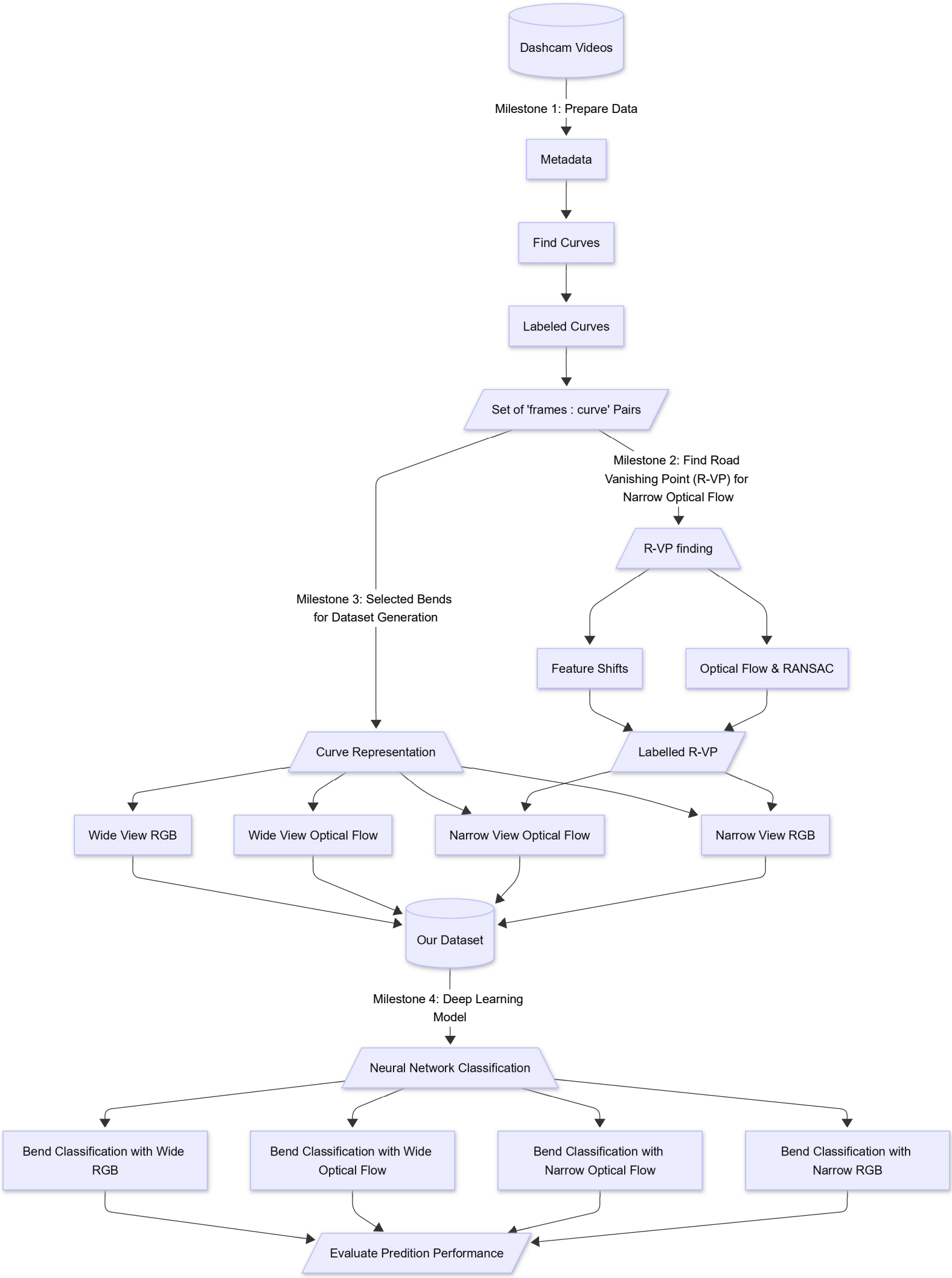Processing Pipeline