Please create a comprehensive cost analysis for a serverless essay grading application with the following AWS architecture and usage patterns. Convert the estimation to PDF format.

Architecture Components:
API Gateway:

REST API with 2 endpoints (/grade-essay, /generate-rubric)
10,050 total API requests per month (10,000 essay grading + 50 rubric generation)
Regional endpoint type with CORS enabled

AWS Lambda Functions:

Rubric Generation Lambda: 50 invocations/month, 180 seconds average duration, 1GB memory allocation
Essay Grading Lambda: 10,000 invocations/month, 9 seconds for 6 essays, every invocation will have 100 essays, 1GB memory allocation
Python 3.11 runtime for both functions

Amazon Bedrock (Nova Pro):

Rubric Generation: 50 requests/month, ~3,000 input tokens + 1,500 output tokens per request
Essay Grading: 10,000 requests/month, ~2,000 input tokens + 800 output tokens per request
Model: amazon.nova-pro-v1:0

DynamoDB:

Table: ku_grading_rubrics (partition key: essay_type, sort key: content_id)
On-demand billing mode
Storage: ~5GB total (rubric data)
Read requests: ~10,000/month (essay grading lookups)
Write requests: ~50/month (new rubrics)

S3 Storage:

Output bucket: 20GB storage, 10,000 PUT requests/month (grading results)
Input data access: 1,000 GET requests/month from external buckets
Standard storage class

Data Transfer:

Inter-service communication within same AWS region
Minimal outbound data transfer (~5GB/month for API responses)

Additional Considerations:

US East 1 (Virginia) region
Development environment (no reserved capacity)
CloudWatch Logs for Lambda functions
Standard encryption at rest

Usage Patterns:

Peak usage during academic periods with batch processing capability
Primarily synchronous API calls with some timeout handling
Educational workload with predictable monthly patterns

Please provide itemized monthly costs for each service, total monthly estimate, annual projection, and identify the top 3 cost drivers with optimization recommendations.