

NGS Internship Topics

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50
Active Categories

20
Focused Areas

Internships
Internships

NGS Internship Categories

AI NGS Data Pipeline Research https://internships.nthrys.com/ngs/ai-ngs-data-pipeline-research	Machine Learning Variant Calling Research https://internships.nthrys.com/ngs/machine-learning-variant-calling-research
AI Long-Read NGS Analysis Research https://internships.nthrys.com/ngs/ai-long-read-ngs-analysis-research	AI Single-Cell NGS Research https://internships.nthrys.com/ngs/ai-single-cell-ngs-research
AI Spatial Transcriptomics NGS Research https://internships.nthrys.com/ngs/ai-spatial-transcriptomics-ngs-research	AI Metagenomics NGS Research https://internships.nthrys.com/ngs/ai-metagenomics-ngs-research
AI Epigenomics NGS Research https://internships.nthrys.com/ngs/ai-epigenomics-ngs-research	AI Clinical NGS Application Research https://internships.nthrys.com/ngs/ai-clinical-ngs-application-research
AI NGS Quality Control Research https://internships.nthrys.com/ngs/ai-ngs-quality-control-research	AI Low-Input NGS Technology Research https://internships.nthrys.com/ngs/ai-low-input-ngs-technology-research
RNA-Seq Transcriptome Assembly Optimization https://internships.nthrys.com/ngs/ma-seq-transcriptome-assembly-optimization	Whole Genome Sequencing SNP Discovery https://internships.nthrys.com/ngs/whole-genome-sequencing-snp-discovery
Targeted Panel Sequencing Disease Detection https://internships.nthrys.com/ngs/targeted-panel-sequencing-disease-detection	Copy Number Variation Analysis Methods https://internships.nthrys.com/ngs/copy-number-variation-analysis-methods
Environmental DNA Microbial Community Profiling https://internships.nthrys.com/ngs/environmental-dna-microbial-community-profiling	Structural Variant Detection Pipeline Development https://internships.nthrys.com/ngs/structural-variant-detection-pipeline-development
Bacterial Genome Assembly High-Throughput https://internships.nthrys.com/ngs/bacterial-genome-assembly-high-throughput	Chromatin Immunoprecipitation NGS Analysis https://internships.nthrys.com/ngs/chromatin-immunoprecipitation-ngs-analysis
Viral Genome Sequencing Outbreak Investigation https://internships.nthrys.com/ngs/viral-genome-sequencing-outbreak-investigation	RNA Editing Site Discovery and Validation https://internships.nthrys.com/ngs/ma-editing-site-discovery-and-validation
Cancer Mutation Signature Analysis Research https://internships.nthrys.com/ngs/cancer-mutation-signature-analysis-research	Plant Genomics NGS Marker Development https://internships.nthrys.com/ngs/plant-genomics-ngs-marker-development
Immunoglobulin Repertoire Sequencing Analysis https://internships.nthrys.com/ngs/immunoglobulin-repertoire-sequencing-analysis	Ancient DNA Degradation Pattern Analysis https://internships.nthrys.com/ngs/ancient-dna-degradation-pattern-analysis
Forensic Genomics STR Analysis Pipeline https://internships.nthrys.com/ngs/forensic-genomics-str-analysis-pipeline	Circulating Tumor DNA Early Detection https://internships.nthrys.com/ngs/circulating-tumor-dna-early-detection
Alternative Splicing Variant Characterization https://internships.nthrys.com/ngs/alternative-splicing-variant-characterization	Pharmacogenomics Variant Interpretation Study https://internships.nthrys.com/ngs/pharmacogenomics-variant-interpretation-study
Exome Sequencing Rare Disease Gene Discovery https://internships.nthrys.com/ngs/exome-sequencing-rare-disease-gene-discovery	DNA Methylation Profiling WGBS Analysis https://internships.nthrys.com/ngs/dna-methylation-profiling-wgbs-analysis

Mitochondrial Genome Variant Detection https://internships.nthrys.com/ngs/mitochondrial-genome-variant-detection	Fungal Pathogen Genome Characterization https://internships.nthrys.com/ngs/fungal-pathogen-genome-characterization
Haplotype Phasing and Population Genetics https://internships.nthrys.com/ngs/haplotype-phasing-and-population-genetics	ATAC-Seq Chromatin Accessibility Mapping https://internships.nthrys.com/ngs/atac-seq-chromatin-accessibility-mapping
Pathogen Resistance Gene Identification https://internships.nthrys.com/ngs/pathogen-resistance-gene-identification	Hi-C Chromosome Conformation Capture Analysis https://internships.nthrys.com/ngs/hi-c-chromosome-conformation-capture-analysis
Non-Coding RNA Discovery and Validation https://internships.nthrys.com/ngs/non-coding-rna-discovery-and-validation	Polyploid Genome Assembly and Analysis https://internships.nthrys.com/ngs/polyploid-genome-assembly-and-analysis
Translational NGS Biomarker Development https://internships.nthrys.com/ngs/translational-ngs-biomarker-development	Repetitive Element Annotation Classification https://internships.nthrys.com/ngs/repetitive-element-annotation-classification
Transcriptional Regulatory Element Discovery https://internships.nthrys.com/ngs/transcriptional-regulatory-element-discovery	Probiotic Strain Genomic Characterization https://internships.nthrys.com/ngs/probiotic-strain-genomic-characterization
CRISPR Off-Target Effect Detection NGS https://internships.nthrys.com/ngs/crispr-off-target-effect-detection-ngs	Antimicrobial Resistance Gene Mapping https://internships.nthrys.com/ngs/antimicrobial-resistance-gene-mapping
Organellar Genome Evolution Comparative Study https://internships.nthrys.com/ngs/organellar-genome-evolution-comparative-study	Clinical Cytogenomics Array Interpretation https://internships.nthrys.com/ngs/clinical-cytogenomics-array-interpretation
Tumor Heterogeneity Single-Cell DNA https://internships.nthrys.com/ngs/tumor-heterogeneity-single-cell-dna	Glycoprotein Epitope Prediction NGS https://internships.nthrys.com/ngs/glycoprotein-epitope-prediction-ngs
Synthetic Biology Construct Verification https://internships.nthrys.com/ngs/synthetic-biology-construct-verification	Cross-Species Comparative Genomics Research https://internships.nthrys.com/ngs/cross-species-comparative-genomics-research

NGS Internship Topics and Focused Areas

AI NGS Data Pipeline Research

- Machine Learning Model Optimization for Variant Calling
- Quality Control and Data Filtering Algorithms
- Sequence Alignment Pipeline Acceleration
- Annotation and Functional Impact Prediction
- Scalable Data Management and Pipeline Architecture

RNA-Seq Transcriptome Assembly Optimization

- De Novo Transcriptome Assembly Pipeline Optimization
- Quality Assessment and Error Correction in RNA-Seq Assemblies
- Transcript Isoform Detection and Characterization
- Comparative Transcriptomics Assembly Framework Development
- Long-Read and Short-Read Hybrid Assembly Integration

Viral Genome Sequencing Outbreak Investigation

- Real-time Phylogenetic Analysis of Viral Outbreaks
- Viral Variant Identification and Classification
- Phylogenetic Analysis and Molecular Epidemiology

- Viral Mutation Pattern Recognition and Variant Characterization
- Consensus Sequence Assembly and Quality Control
- Quality Control and Data Processing Pipelines for Viral NGS
- Epidemiological Modeling Using Viral Genomic Data
- Mutation Analysis and Functional Annotation
- Comparative Genomics of Viral Strains in Outbreak Clusters
- Real-time Surveillance Data Integration and Reporting

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