

Denis Mistrik

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EXPERIENCE

USC Multi-omics Mass Spectrometry Core

Los Angeles, CA

Computer Scientist

March 2025 – Present

- Streamlined Data Entry and Data Analysis operations with Python scripts and Ingenuity Pathway Analysis

Amazon AWS High Performance Computing

Seattle, WA

SDE Intern

May 2024 – August 2024

- Developed and deployed new full-stack on-call operations portal using React (Typescript) for the frontend and AWS Lambda (Java) with XML models for the backend, improving on-call investigation times
- Authored comprehensive design documents and presented multiple live demos to the organization, communicating the various requirements and technical concepts

Amazon AWS SimTech

Seattle, WA

SDE Intern

May 2023 – August 2023

- Developed AWS Lambda functions to aid my team's development process (Java) (TypeScript)
- Fixed Lambda deployment memory issues and significantly reduced S3 code storage utilization

Pex

Los Angeles, CA

Research & Development Intern

June 2022 – July 2022

- Developed benchmark procedures for multiple similarity search libraries and evaluated their efficacy with Python scripts (ScaNN, FAISS, N2, NMSLIB)
- Presented my data analysis to the R&D department, leading to the selection of the best-performing library

ESET

Bratislava, SK

Junior Software Engineer

June 2021 – July 2021

- Developed C++ code to extract trace log data from the ESET web console and applied clustering, analysis in Python to identify performance bottlenecks and usage patterns, leading to targeted optimizations
- Developed KQL scripts for data exchange and visualization in Azure, enhancing application monitoring

PROJECTS

SEC Corporate Filings Visualizer (filingsvisualized.com)

- Developed an interactive web platform to visualize and compare SEC EDGAR 10-K and 10-Q filings data for any publicly traded US companies, with customizable dashboards. (Streamlit)
- Implemented advanced clustering and data-analysis features to uncover patterns in financial data.

Visual Genetic Algorithm

- Developed an application for running a graphical and customizable maze traversing genetic algorithm.

MOBA Style Game with ChatGPT integrated AI

- Developed an MMO/MOBA-style game using the Godot Engine. Implemented custom AI logic enhanced with ChatGPT API calls to dynamically adjust heuristics based on real-time game state analysis.

EDUCATION

University of Southern California

Los Angeles, CA

Masters of Computer Science, Viterbi School of Engineering

August 2023 – December 2024

- GPA: 3.40
- Relevant Courses: Database Systems, Web Retrieval, Robotics, USC Advanced Game Projects

Bachelors of Computer Science cum Laude, Viterbi School of Engineering

August 2020 – December 2023

- GPA: 3.66 (6x Dean's List)
- Relevant courses: Networking, Principles of Software Development, Operating Systems, Network Security

SKILLS

Proficient: Python, C++, Git, AWS Services, Godot, Game Development, Streamlit

Familiar: Java, Docker, JUnit, React, SQL, ROS, Perforce, Unreal, DigitalOcean, OpenAI API, RDKit, Plotly, Scikit