

David Munechika

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EDUCATION

Georgia Institute of Technology - Atlanta, GA

Master of Science in Computer Science (Machine Learning)

Bachelor of Science in Computer Science

GPA: 4.0

May 2024

May 2023

- **Stamps President's Scholarship:** A full-ride scholarship awarded to 40 students out of 30,000 applicants
 - **Grand Prize Winner - Georgia Tech I2P Showcase:** Won first place among 65+ startups for a web application that facilitates the creation of non-profit partnerships (170+ organizations)
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EXPERIENCE

Apple - Software Engineering Intern

May 2023 - Present

- Building intelligent systems for personalized experiences on the Proactive Machine Learning team
- Utilizing Apple's CoreML, Accelerate, Vision, and SwiftUI frameworks along with PyTorch and Tensorflow to maintain and develop core on-device machine learning models and user-facing features on iOS

Amazon Web Services - Software Development Engineer Intern

May 2022 - Aug 2022

- Developed a backend service powered by Elastic Compute Cloud (EC2) and Virtual Private Cloud (VPC) technologies for monitoring and predicting scaling cliffs in internal AWS networking services
- Utilized multithreading and distributed computing to generate real-time statistical dashboards for 90M records

Cypress - Software Development Intern

Sep 2021 - May 2022

- Implemented features across the stack in the Cypress test runner; merged over 50 PRs in open-source repo
- Served as the primary support engineer responsible for triaging new issues, fixing regressions, surfacing high-priority bugs, and engaging with the open-source community (over 5M weekly npm downloads)
- Created a repository of web hooks for automating ClickUp actions to streamline PM processes; integrated CircleCI pipeline, Coveralls code coverage, Honeycomb distributed tracing, and automated deployments

Stord - Software Engineering Intern

May 2021 - Aug 2021

- Developed both the distributed microservice backend and enterprise frontend architecture to handle inventory management, order orchestration logic, facility activities, and security compliance protection
 - Co-led a team of 10 engineers in spearheading the load testing effort prior to a major software release, optimizing the performance of services to handle 2 million order creations per day
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RESEARCH

Georgia Institute of Technology - Undergraduate Research Assistant

Aug 2021 - Present

DiffusionDB: A Large-scale Prompt Gallery Dataset for Text-to-Image Generative Models

- Created the first large-scale text-to-image prompt dataset containing 14 million Stable Diffusion images
- Was #1 trending and top 3 most-liked dataset on HuggingFace; nominated for Best Paper Award (ACL 2023)

Visual Auditor: Interactive Visualization for Detection and Summarization of Model Biases

- Created a web application to algorithmically identify intersectional bias in ML models (IEEE VIS 2022)

NOVA: A Practical Method for Creating Notebook-Ready Visual Analytics

- Developed a method for adapting visual analytics systems for computational notebooks (IEEE VIS 2022)

Harvard University - Undergraduate Research Assistant

Sep 2020 - Jul 2021

- Employed text mining and NLP to analyze the geospatial impact of media coverage on information-seeking behavior and the spread of COVID-19; project presented during an IAB- and NSF-funded webinar

Rochester Institute of Technology - Machine Learning Intern

Jun 2019 - Aug 2019

- Developed a CNN synthesizing continual learning and novelty detection capabilities (WNYISPW 2019)
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PROJECTS

Auxpad - <https://www.auxpad.com/>

Mar 2021 - Aug 2021

- Developed a web-based note-taking application with integrated voice transcription capabilities
 - Implemented the frontend UI/UX, NLP speech recognition, audio streams, file transcription, and REST API
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TECHNICAL SKILLS

Programming: Python, Javascript/Typescript, Java, Swift, Elixir, HTML, CSS, C#, SQL

Frameworks & Tools: AWS, GCP, MongoDB, MySQL, PostgreSQL, Node, React, Express, Phoenix, SwiftUI,

CoreML, D3, Socket.io, Apache Kafka, Cypress, Pandas, NumPy, PyTorch, Tensorflow, Git, Docker, k6, Figma, UNIX