Nika Gedenidze

+1 (717) 775-0711 | Caldwell, NJ | ngedenidze@outlook.com | Github.com/NGedenidze | Linkedin.com/in/ngedenidze/

EDUCATION

Caldwell University | Bachelor of Science in Computer Science, Minor in Mathematics — Expected 05/24

- GPA: 3.80 / 4.0;
- Honors in Computer Science, Presidential Scholarship ($30,000/y), Dean's List (2020 - 2024);
- Selected Coursework: Artificial Intelligence, Design & Analysis of Algorithms, Data Structures & Algorithms, Software Engineering Capstone, Full-Stack Web Development, Operating Systems, Networking and Communications.

EXPERIENCE

Software Engineering Intern — 05/24 - Present

Redhawk Research| Remote

- Constructed and deployed an admin portal, integrating core backend functionality with GraphQL, improving security and administrative efficiency by 30%.
- Developed core features, including staff user authentication and permission inspection, achieving 100% operational readiness for user management.
- Architected 30+ custom GraphQL queries to control 25+ tables in PostgreSQL with relations, enhancing system interoperability by 60%.

Front-End Web Developer Intern — 06/24 - Present

AeroDefense| Remote

- Engineered the Products Page for the company's main website in WordPress, embedding customer reviews, deployment options, and testimonial subpages, which boosted user engagement by 40% and increased conversion rates by 25%.
- Implemented several plugins to enhance responsive design and accessibility, resulting in a 20% increase in customer engagement and satisfaction.
- Designed custom components for websites using Javascript HTML, and CSS, comparing AeroDefense products on key criteria, improving user decision-making efficiency by 25%.
- Enhanced product listing accuracy by updating pricing and availability details with marketing-driven content, resulting in a 25% reduction in customer inquiries and a 15% increase in sales.
- Optimized the website for search engines (SEO), leading to improved search rankings and increased organic traffic.

Machine Learning Research Assistant — 03/22 - 05/24

The Cog AI lab | Caldwell, NJ

Leveraged Python, TensorFlow, Keras, and Matplotlib to develop and visualize the performance of models, resulting in 40+ interactive visualizations and a 50% improvement in model interpretability.

Key Accomplishments:

- Refined CNN training on the HasyV2 dataset by implementing layer freezing schedules, achieving approximately 10% faster training times and a 2% higher validation accuracy than traditional CNNs.
- Led a transfer learning project on the HasyV2 dataset, incorporating 10+ models with frozen backpropagation trained on MNIST image datasets, reducing training times by 57.7% and 66.2% on each dataset.

Peer-reviewed publications/presentations:

- Gedenidze, N. & Veksler, V. D. (2024). A Layer-Freezing Approach for Reduced Backpropagation Demand. 28th annual conference of the Consortium for Computing Sciences in Colleges, Northeastern Region (CCSCNE).
- Veksler, V.D., Gedenidze, N., & Yadav, R. (2023). Visual Cortex Doesn't Change, Why Should Convolutional Layers? The 16th International Conference on Brain Informatics.

PERSONAL PROJECTS

Full Stack Web Developer — 12/22 - 07/23

Caldwell University | Caldwell, NJ

- Developed a cross-device web app, achieving a 35% increase in user engagement by leveraging responsive design and creating an interactive web game using JavaScript, HTML, CSS, and Express.js.
- Enhanced backend performance and security with JSON Web Token authentication, and REST API model structure.
- Improved gameplay complexity and user experience by integrating data pipelining with a 10,000+ word database, while boosting backend scalability using MongoDB for data storage and jQuery API to source 5-letter words from GitHub.
- Streamlined deployment and hosting by utilizing Firebase Hosting and Firebase Functions, reducing deployment time by 30% and achieving server response times of approximately 400ms.

SKILLS

Programming/Scripting/Frameworks: JavaScript, Python, Java, HTML, CSS, Node.js, Express.js, React, Keras, TensorFlow;
Libraries and Database: PostgreSQL, Prisma, GraphQL, MongoDB, Google Cloud SQL, Mongoose;
Cloud Services: Firebase Hosting, Firebase Functions, Google Cloud Run;
Tools: Docker, VS Code, GitHub, Jupyter Notebook, Oracle VM VirtualBox, Unity;