

KRITIKA PARAJULI

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EDUCATION

Bachelors of Science in Computer Science; Minor in Mathematics

Dec 2025

State University of New York (SUNY) at Oswego | Oswego, NY

GPA: 3.69

AWS Academy Cloud & Security Foundations Trained : aa064418-7431-40e5-b5f6-ec5b517d09ba

TestOut Security Pro : 6-1C6-VG3HBL

Publication:

B. Tenbergen, K. Parajuli, T. Marten, M. Daun: Towards a Quantification Framework for Model Comprehension: A Qualitative Comparison of Measurements. In: Communications in Computer Science and Information Science, 2025. (in press)

PROGRAMMING LANGUAGES

Java (Advanced), Python (Advanced), C++ (intermediate), Go (Intermediate), C# (Intermediate), SQL (Intermediate), Rust (Beginner), Haskell (Beginner), Scala (Beginner)

RELEVANT EXPERIENCE

Global EMRA Automation Engineering Intern (C#)

May 2025 - Dec 2025

Novelis

- Built and maintained tools to streamline asset inventory management across automation systems, causing a 99% accuracy and visibility for cross-functional teams
- Applied Agile practices to solve problems through stakeholder meetings, iterative development, and testing, delivering solutions aligned with user needs and business priorities
- Enhanced training and onboarding materials by identifying gaps, updating content, and designing new resources focusing on engagement, reducing the training time by 2 days while retaining the knowledge and information

Tutor

Jan 2025 - May 2025

SUNY Oswego - Office of Learning Services

- Facilitated individual and group tutoring sessions for Calculus and Computer Science, breaking down core concepts like data structures, computer network and security, parallel programming, etc. in different programming languages like Java, Python, C, etc.
- Guided students through different debugging techniques and tools such as manual print statements, IDE debugging breakpoints, binary search, logging, rubber ducking, etc. to foster problem solving and critical thinking skills
- Tailored teaching methodologies to accommodate students with different learning styles, special needs and language barrier, in an attempt to be more accessible to everyone

Software Engineer Intern (React JS)

Jun 2024 - Aug 2024

Jobs4Interns | Chantilly, VA

- Utilized Git for version control and Postman to test 20+ backend REST endpoints, integrating API calls with a MongoDB database to ensure reliable data flow and data integrity across the application
- Coordinated frontend-backend integration across the full stack, debugging and resolving cross-component issues to improve application responsiveness and overall performance
- Developed responsive frontend features through iterative releases, translating stakeholder requirements into scalable, maintainable code while supporting ongoing enhancements

Research Intern (Python)

Jun 2024 - Aug 2024

Computer Science Department at SUNY Oswego | Oswego, NY

- Investigated the quantification of model comprehension by analyzing UML and KAOS diagrams using Voronoi-based spatial metrics, aiming to uncover measurable structural patterns that correlate with cognitive load during model interpretation
- Managed a team using Agile methodologies and sprint planning, optimizing tools such as Jira, Gantt charts, Trello, and Git optimizing team efficiency and deliverables

Teaching Assistant (TA)

Jan 2024 - May 2024

Information Science

- Co-created a comprehensive and lecture materials and assessments for a brand new course featuring the Software Engineering Life Cycle tailored towards Information Science students
- Evaluated assessments and assignments, delivering detailed feedback to ensure student alignment with industry-standard Software Engineering practices and requirements
- Coordinated closely with the professor to manage administrative tasks and student inquiries, ensuring seamless delivery of the curriculum

RELEVANT PROJECTS

AWS Deployment (Go)

- Automated and optimized CI/CD pipelines for a containerized application using Amazon ECS and CodeDeploy, improving deployment reliability and ensuring consistent production rollouts
- Configured AWS EC2 instances and Docker containers, including performance manual deployments to fully understand the underlying deployment lifecycle and strengthen automation decisions
- Implemented comprehensive monitoring and logging solutions with Amazon Cloudwatch and Loggly, to track performance and troubleshoot deployment issues

Quotable - Fullstack Application (Java, React JS)

- Collaborated in a cross-functional team of 20 students to design, develop and deploy 'Quotable', a full-stack quote management application featuring a RESTful API, user authentication, and a responsive front-end built with React
- Served on the Requirements team, gathering and defining project requirements through stakeholder interviews and collaborative workshops, in addition to refining system requirements throughout the project's lifecycle
- Co-managed the project timeline and coordination among front-end, back-end, QA and UX/UI teams to ensure alignment between design goals and user needs
- Assisted developers and testers by identifying and resolving issues during the development process, delivering effective communication and ensuring agile collaboration to keep all teams on track for the bi-weekly scrums

Envisionary Application (Java, React JS, Enterprise Architecture)

- Collaborated with a team of 4 to build a web application managing the project through the complete SDLC from initial requirements to final deployment and testing
- Led the creation of a comprehensive Software Requirements Specification (SRS) and designed system architecture using UML and KAOS diagrams to ensure scalable and organized code structure
- Developed functionality to fetch real-time data from four external APIs to validate user's predictions, in addition to displaying complex statistics and win probabilities
- Executed a testing strategy that included Unit, Integration, System and Integration testing to ensure application stability and data accuracy

Parallel Computing Implementation (Java)

- Built a parallel genetic algorithm for facilities layout optimization problem, coordinating 50+ concurrent tasks to evolve station placements on a 2D factory floor, maximizing affinity metrics through parallel mutation and crossover
- Developed a parallel search algorithm to solve English Checkers, distributing game-state exploration across multiple threads in multiple servers, to compute optimal solution, significantly reducing computation time compared to a sequential approach

EXPERIENCE

Career Peer Intern

Aug 2024 - May 2025

SUNY Oswego - Career Services

- Facilitated drop-in hours and workshops on résumés, job searching, and LinkedIn, helping students improve job application success rates
- Networked with employer partners to organize events and information sessions, providing students with direct access to job and internship opportunities
- Collaborated with a Career Coach to plan and execute career programs, resulting in enhanced student engagement and successful partnerships with campus organization

Resident Assistant (RA)

Jan 2023 - May 2025

SUNY Oswego - Residence Life and Housing

- Served as an on-call responder for residential incidents, addressing policy violations, safety concerns, and emergencies overnight while documenting them to ensure fair resolution, clear communication, and accurate reporting
- Planned and facilitated frequent community-building programs for 300+ students, fostering an inclusive and supportive living environment
- De-escalated and mediated mental health crises and interpersonal conflicts, calmly intervening in high-stress situations to ensure resident safety, eventually connecting individuals with appropriate resources

Computer Lab Assistant (CLA)

Aug 2022 - May 2025

SUNY Oswego - Campus Technology Services (CTS)

- Provided frontline technical support to students and faculty diagnosing and solving minor hardware, software, and network connectivity issues across different operating systems to ensure minimal disruption to academic work
- Assisted with software setup, configuration, and troubleshooting, while helping students and faculty navigate applications and services in a fast-paced environment
- Served as a liaison between students and Campus Technology Services, clearly communicating technical issues, escalating complex problems, and improving the efficiency of support workflows through accurate documentation

MEMBERSHIPS & AFFILIATIONS

Committee Leader/Member	Aug 2022 - Dec 2025
Asian Student Association (ASA)	
Member	May 2022 - Dec 2025
Math Club	
Member	Jan 2022 - Dec 2025
Computer Science Association (CSA)	