

Paolo Pop

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Education

Rochester Institute of Technology

Bachelor of Science, Software Engineering

GPA: 3.2/4.0

Dean's List: Spring 2022, Spring 2023

Rochester, NY

May 2026

Relevant Coursework:

- *Web Engineering*: Full stack web development using PostgreSQL, Python/Flask, and ReactJS with Bootstrap.
- *Analysis of Algorithms*: Covered CS principles and algorithm optimization using space-time complexity analysis.
- *Engineering Secure Software*: Security principles and practices, vulnerability analysis, threat modeling and in depth research of software systems including Tomcat Apache. (Team Project)
- *Cloud Software Systems*: Cloud architecture principles including containerization, orchestration, auto-scaling, and high availability. Covered VPCs, serverless computing, and various database solutions. Practical experience with infrastructure as code using Terraform to deploy full-stack applications. (Team Project)

Experience

AWS Cloud System Project

Freelance Cloud Engineer

Dec '24 – March '25

- Architected and implemented an AWS serverless document processing pipeline using Step Functions, Lambda, S3, DynamoDB, and API Gateway, reducing operational costs by 40%.
- Implemented infrastructure as code with Terraform to automate deployment of AWS resources, reducing setup time from days to minutes.
- Integrated AI capabilities via OpenAI APIs with robust error handling and retry logic for enhanced reliability.
- Built frontend application with Electron, React, and TypeScript that interacts with AWS backend services.
- Led complete project lifecycle from requirements gathering to deployment, delivering the solution on schedule and under budget.

Quality Vision International

Rochester, NY

Software Development Intern

Sep '23 – Dec '23

- Performed manual testing and bug fixes for C# ASP.NET web application, identifying and resolving 100+ bugs through systematic manual testing procedures and defect tracking.
- Optimized SQL queries and C# database interactions using to improve performance.
- Developed and tested stored procedures for database migration, ensuring successful execution.
- Managed source code repository updates using TFS version control.

Vulnerability History Project

Rochester, NY

Software Research Intern

May '23 – Sep '23

- Developed and maintained an end-to-end testing suite using Capybara and Selenium WebDriver to achieve 90%+ test coverage across critical user workflows in Ruby on Rails application.
- Implemented custom tooltips from scratch using jQuery and JavaScript, precisely following the provided design specifications.

Skills & Interests

Technical: JavaScript, Python, Java, C/C++, C#, Ruby; PyTest, JUnit, Mockito; Selenium, Capybara, MechanicalSoup; AWS Cloud Services, Terraform, PySpark; React.js, Next.js, Electron.js; PostgreSQL, GraphQL, JSON, DynamoDB; Version Control tools, Unix/Linux.

Language: Native: Romanian; Fluent: Italian, English; Intermediate: Spanish, Japanese, ASL

Interests: Photography, Music, Snowboarding, Cars, Computers, Languages, Space exploration, Technological advancements such as BCI or AI particularly in relation to prompt engineering.