Nathalia Valli

King of Prussia, PA | nathaliavalli@gmail.com | +1 215-767-9867

Education

Temple University, Philadelphia, PA   May 2025
Bachelor of Science in Mathematics and Computer Science
Strong foundation in software engineering principles, algorithms, and system design

Technical Skills

- **Languages:** Java, JavaScript (Node.js), Python, C/C++, MATLAB
- **Web:** React, TypeScript, Node.js, RESTful APIs, HTML/CSS
- **Software Engineering:** Git/GitHub/GitLab, Jira, Agile/Scrum, Code Review
- **Tools:** CI/CD, Testing Frameworks, Debugging, Config Management
- **Systems:** Unix/Linux, Process & Memory Management, System Calls
- **Data:** Statistical Analysis, Algorithm Development, Mathematical Modeling
- **Documentation:** LaTeX, Technical Writing, System Architecture, API Specs

Projects

StoryQuest AAC Application - Full-Stack Development   Spring 2025
React, TypeScript, Node.js, Agile Development
- Developed full-stack web application using React/TypeScript front-end with Node.js backend services
- Implemented RESTful APIs and database integration following software engineering best practices
- Applied Agile development lifecycle with sprint planning and Jira for project management
- Utilized Git version control for collaborative development and automated build practices

Spaceify Web Application - API Integration & System Design   Fall 2024
JavaScript, Node.js, RESTful APIs, System Architecture
- Architected scalable full-stack web application with focus on performance and maintainability
- Developed RESTful API endpoints with authentication, error handling, and data validation
- Designed modular system architecture following software engineering design patterns
- Implemented comprehensive testing strategies including unit and integration testing

Custom Unix Shell - Systems Programming   Spring 2024
C Programming, Linux/Unix, System Calls, Process Management
- Developed command-line shell in C with advanced process management and signal handling on Linux
- Implemented core functionality including command parsing, process creation, and IPC
- Applied low-level programming concepts including memory management and system call interfaces
- Created detailed technical documentation covering system design and testing procedures

Data Analysis & Algorithm Development Platform   Spring 2024
Python, MATLAB, Algorithm Design, Statistical Analysis
- Developed data-driven software solutions for complex computational problems using Python and MATLAB
- Implemented efficient algorithms for traffic flow optimization and pattern recognition systems
- Applied software development lifecycle from requirements gathering through deployment
- Utilized Git version control and collaborative development practices throughout project development

Additional Qualifications

- **U.S. Citizen** - Eligible for government security clearance including TS/SCI
- **Full-Stack Development** - Experience with both front-end and back-end software development
- **Agile Development** - Experience with Agile methodologies and team collaboration using Jira
- **Software Development Lifecycle** - Requirements analysis, design, implementation, testing, maintenance
- Strong communication skills with experience in collaborative development environments