

# ANDREA PALLOTTA

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## PROFESSIONAL SUMMARY

Production & Software Engineer specializing in standalone Python applications, full-stack internal platforms, and production automation. Proven track record of building reliable software, internal customer-facing dashboards, RESTful APIs, and observability tooling for enterprise trading infrastructure. Pragmatic problem solver dedicated to system health, release automation, and clean architecture.

## TECHNICAL SKILLS

- **Languages:** Python, TypeScript, JavaScript, Bash, PowerShell, C++, SQL, HTML/CSS
- **Backend & APIs:** Python (FastAPI, Flask), RESTful APIs, Node.js, Async/Parallel Scripting, Standalone Services
- **Frontend & Web:** React, Vite, Next.js, Tailwind CSS, Astro, Three.js / WebGL
- **Systems & Performance:** Hardware & Memory Optimization, Linux Systems & OS Internals, High-Availability Infrastructure, System Telemetry
- **DevOps & Automation:** Automated Job Control, CI/CD Rollouts, Observability Tooling, System Monitoring, Operational Runbooks

## WORK EXPERIENCE

### Susquehanna | Philadelphia, PA

*Production Engineer, Equities & Futures Desk* [Jan 2025 - Present]

- Architect and develop standalone Python applications, REST APIs, and analytical tools for internal engineering and operational teams.
- Build and maintain full-stack internal web applications and dashboards featuring custom authentication, job control, and real-time telemetry.
- Automate critical production workflows, environment rollouts, and infrastructure hygiene using Python, Bash, and PowerShell.
- Partner with trading, development, and infrastructure teams to diagnose, troubleshoot, and stabilize high-availability production applications.
- Enhance continuous observability, monitoring, and SLO tracking across production environments.

*Systems Engineer* [Aug 2023 - Dec 2024]

- Managed Linux and Windows enterprise server fleet health, automation scripting, and incident response for high-availability systems.
- Developed custom automation utilities (Python/Bash) to eliminate operational toil and accelerate software release pipelines.
- Authored operational runbooks and built system metrics dashboards utilized across cross-functional engineering teams.

### Council Rock | Rochester, NY

*Software Engineer Intern* [Jan 2022 - Jul 2022]

- Developed user-facing web interfaces using React and TypeScript, optimizing component rendering and performance.
- Consulted directly with clients on technical requirements, software enhancements, and interface design.
- Gained hands-on experience in Linux software development, networking protocols, and web security best practices.

## FEATURED PROJECTS

- **Subroutine** ([subroutine-cs.cc](https://subroutine-cs.cc)): Interactive CS educational platform with real-time audio-visual simulations for algorithms, systems, AI/ML, and physics integration. *Tech:* Astro, React, TypeScript, HTML5 Canvas, Web Audio API.
- **Confignition** ([NPM Package](#)): Flexible Node/TypeScript configuration engine supporting multiple formats, remote sources, hot reloading, and strict parsing.
- **Ez-templates** ([NPM Package](#)): NPX CLI scaffolder for spinning up web templates rapidly with zero boilerplate.

## EDUCATION

### Rochester Institute of Technology (RIT) | Rochester, NY

*Bachelor of Science in Web and Mobile Computing* (Minor in Cyber Security) | **Summa Cum Laude (GPA: 3.8 / 4.0)** [May 2023]