JOHN PRATT

Vienna, VA | 571-293-1522 | john@pratt-solutions.com

linkedin.com/in/john-pratt787 | pratt-solutions.com

EDUCATION & CERTIFICATIONS

Georgia Institute of Technology, Atlanta, GA
Bachelor of Science - Computer Science (concentrations: Artificial Intelligence, People**)**

Amazon Web Services   **2021-2024**
Solutions Architect Professional, DevOps Engineer Professional, Solutions Architect Associate, Developer Associate, SysOps Administrator Associate, Data Engineer Associate, Machine Learning Engineer Associate, Security Specialty, Advanced Networking Specialty, Machine Learning Specialty, AI Practitioner, Cloud Practitioner

Google Cloud   **2023-2024**
Professional Cloud Developer, Professional Cloud DevOps Engineer, Professional Cloud Architect, Professional Cloud Network Engineer, Professional Cloud Security Engineer, Professional Cloud Database Engineer, Professional Data Engineer, Professional Machine Learning Engineer, Associate Cloud Engineer, Associate Workspace Admin, Cloud Digital Leader, Intro to LLMs, Intro to Responsible AI, Intro to Generative AI

HashiCorp   **2022-2024**
Terraform Associate (002), Vault Associate (002), Consul Associate (003)

Microsoft Azure   **2024-2025**
Solutions Architect Expert, DevOps Engineer Expert, Cybersecurity Architect Expert, Developer Associate, Administrator Associate, Security Engineer Associate, Network Engineer Associate, AI Engineer Associate, Data Engineer Associate, Database Administrator Associate, Identity and Access Administrator Associate, Cosmos DB Developer Specialty, SecOps Analyst Associate, AI Fundamentals, Security, Compliance, & Identity Fundamentals, Azure Fundamentals

Snowflake   **2024**
SnowPro Architect, SnowPro Data Engineer, SnowPro Data Scientist, SnowPro Data Analyst, SnowPro Administrator, SnowPro Core

The Linux Foundation   **2024**
OpenJS Node.js Services Developer, OpenJS Node.js Application Developer, Certified Kubernetes Administrator, Kubernetes and Cloud Native Associate

Databricks   **2024**
Generative AI (Associate, Fundamentals), Machine Learning Engineer (Professional, Associate), Data Engineer (Professional, Associate), Apache Spark 3.0 Associate Developer, AWS Platform Architect, Azure Platform Architect, GCP Platform Architect, Databricks Fundamentals, Data Analyst Associate

(Other organizations)   **2020-2025**
Docker Certified Associate (Docker, Inc.); Certified Professional Python Programmer (PCPP - Python Institute); Certified Secure Software Engineer (Secure Code Warrior); Certified Cisco Network Associate, Certified DevNet Associate (Cisco); Liquibase Certified Practitioner; Progress Chef Associate (Progress Software); Confluent Fundamentals (Confluent)

EXPERIENCE

Pratt Solutions, Remote (Vienna, VA)   **May 2020 - Present**
Founder/CEO, Lead Software/DevOps Engineer, Coach
- Taking on IT/software engineering consulting & career/life coaching projects as my schedule allows; **looking to wind down operations & take on my next full-time/long-term contract role**.
- Secured ~**$20 trillion in assets** for a client with **30k customers** by developing a Java Spring Boot library for Okta Authentication & Authorization, enhancing REST API security through JWT validation and Azure Entra integration, cutting security incidents by 25%.
- Reduced deployment errors by ~40% by creating a custom Azure Cosmos DB Terraform module
- Slashed client's Azure costs by ~$35,000 per month by optimizing CosmosDB resources and locking down Terraform modules to require approval for high-cost resources.

- Improved database performance by 31% by leading seamless transition from OracleDB to Azure PostgreSQL DB.
- Sped up incident response time by 18% by creating custom Google Cloud alerts, enhancing operational efficiency and minimizing downtime.
- Boosted Snowflake data retrieval speed by 35%, improving fleet management for **1 million vehicles** by developing a Python REST API.
- Reduced in security incidents by 20% by writing DevOps & SecOps Best Practices guides for 60+ engineers.
- Boosted remote Virtual Desktop login speed by 93% for ~60 engineers through Python Selenium automation and macOS hotkey workflows, enhancing productivity.
- Reduced document upload times by 91% by automating LinkedIn profile scraping and uploading to certification systems using Python, saving ~30 hours per week.
- Improved deployment speeds by 40%+ by consolidating Terraform modules for Azure resources like subnets, VNETs, KeyVault, and CosmosDB.
- Improved infrastructure resiliency for 100+ client engineers by upgrading AzureRM Terraform modules to version 4.0 & adding multi-region support.
- Reduced manual work by 45% via PowerShell scripts for email/calendar forwarding and VDI login apps.
- Led the successful migration of on-prem PCF infrastructure to Azure, improving data architecture and establishing Dynatrace dashboards to monitor performance.
- Improved uptime and reduced latency by 22% for Client's Gemini-based document-processing app via OpenTelemetry traces, Prometheus queries, and GCP alerting policies.
- Enhanced system reliability for Client's **~$110 billion in assets** by 18% via GCP SLO, SLI filters, and alerting policies to improve latency and availability.
- Built and led a global team of 5+ freelancers for BizOps and business development.
- Cut client's $100k/mo infrastructure costs by 15% via comprehensive audit of Azure infrastructure to ensure compliance and eliminate unused resources.
- Generated 100k TikTok views via cloud-deployed pipeline for AI-generated short-form videos, using Python, AWS, OpenAI's API, NLP & more.

Duke Energy Corporation, Remote (Charlotte, NC)   **Jul 2021 - Jan 2024**
Senior Software Engineer
- Saving Duke **~$1M in Labor Capacity** by end of 2024 by leading backend & DevOps for Orbit, an iPad app replacing manual data acquisition and logging at *~100 Duke power plants with several thousand users.* Used Python, AWS (Lambda, API Gateway, S3, IAM, CloudWatch, DynamoDB, VPC...), Node.js, Terraform, Bash, Concourse, & more
- Enabled user file attachments by integrating Orbit API with AWS S3 with custom Terraform module
- Enforced 90% code coverage for Python unit tests, ensuring code reliability
- Coordinated, managed, and performed production releases
- Accelerated prod incident tracking with DynaTrace/AWS X-Ray dashboards, to ease process of issue tracking
- **Eased onboarding and reduced release times by 30%** by refactoring API endpoint Terraform code
- **Sped up AWS Lambda functions by ~21%** using shared runtime environment & caching
- Architected, pitched, & created custom "documentation generation" component to streamline communication of new API features. Uses EventBridge, CloudTrail & more
- **Shrunk Concourse codebase by ~35%** by migrating from Terraform OSS to Enterprise
- **Reduced infra PR merge time by 8-24h** by migrating AWS infra from shared to dedicated environment
- Enhanced code quality & security by integrating SonarQube, Sonatype IQ, & CheckMarx into CI/CD pipeline
- Boosted reliability of Orbit API with Postman integration/load tests, written with auto-generating web-scraper
- **Reduced Integration Test PR merge time, & codebase size by ~94%** with Chai.js/JavaScript Postman helper functions
- **Led collaborative efforts across ~100 engineers** with 5+ "Communities of Practice", along with 6+ project teams, enabling scalable & reusable features and cross-project collaboration
- Enhanced custom SwaggerDoc security w/custom Node.js authorizer, ensuring incoming traffic was from Duke network

Capital One, McLean, VA   **Summer 2017, 2018; Aug 2019 - Jun 2021**
Software Engineer; Technology Development Program Mentor; Software Engineer Intern
- Saving Capital One *~$10k in fines per customer annually* by creating the data fulfillment pipeline for CCPA compliance for its *~100 million customers*, enhancing customer privacy. Used Python, AWS, Docker, Java Spring Boot, Apache Airflow, Apache Kafka & more
- Wrote component for processing & uploading zip files of customer assets (CCPA records) to S3 & alerting web app team via Apache Kafka so they can email customers
- Created Kafka consumer component to process privacy requests ready for processing by our pipeline
- Helped create Python component "Query Builder" to dynamically generate PostgreSQL & Snowflake queries

- Facilitated project shifts for improved value-add & return offers for 2 interns while leading professional development for 5 engineers
- Ensured seamless CI/CD by increasing unit test coverage to 90%+ for all components in our pipeline
- **Screened 20+ software engineer applicants** & got 1 peer hired at the firm by engaging in technical interviews & recruiting
- Supported Capital One pilot-program data warehouse SaaS (Slingshot) - Python, Java Spring Boot, AWS ECS, Docker, AWS DynamoDB, protobuf/gRPC, React, Snowflake - including creating reusable React components

Lockheed Martin, Manassas, VA   **Summer 2015, Summer 2016**
Tech Intern; Senior Tech Intern **(held Secret Security Clearance in 2016)**

SKILLS

Languages, concepts:
Python (2, 3), Bash, HCL (Terraform OSS, Enterprise, Cloud; AWS, AzureRM, AzAPI), JavaScript (Node.js, React, Angular), Docker, Kubernetes, Java (Spring Boot 3), Go, PowerShelfl, Lua, Scala, Groovy, Progress Chef; unit testing, integration testing, smoke testing, performance testing, test-driven development; CI/CD (continuous integration and continuous deployment), DevOps, SecOps, GitOps, Databases, SQL (PostgreSQL/Postgres, MySQL, SQLite); NoSQL (DynamoDB, mongoDB), KQL (Kusto Query Language), osquery (osquery.io); Prometheus Query Language (PromQL); GCP Logging Query Language (LQL), Monitoring Query Language (MQL); microservice architecture, cloud pipelines, data pipelines, CI/CD pipelines; Object Oriented Design, User- Centered Design; REST/RESTful APIs**;** OAuth2 flow; cloud infrastructure management, Infrastructure as Code (IaC), configuration management, software development best practices, troubleshooting, refactoring, analyzing & prioritizing business objectives; monitoring and logging; containerized workloads, serverless architecture; orchestration; serialization; automated testing; debugging, root cause analysis; containerization; large language models, prompt engineering; distributed systems; B2B SaaS applications; networking, VLANs, DNS leaks, VPNs, home networking, proxy servers, configuration drift ("config drift")

Libraries/frameworks:
pip, pipenv, pytest, requests, boto3, unittest, coverage, assertpy, requests_mock, moto, pandas, NumPy, sqlsmith, Selenium, yt-dlp, MoviePy, mutagen, pydub, pickle, Python Imaging Library (PIL/Pillow), PRAW (Python Reddit API Wrapper), spaCy, NLTK, OpenAI, Tkinter, inflect, Django; TikAPI; nvm, npm, gatsby, yarn, webpack, Chai.js, GraphQL, SquareSpace; gradle (8.10), Maven, Spring Web, Spring Security, JUnit, PowerMock, Mockito, Apache Avro; Hammerspoon, AutoHotKey; OpenTelemetry (Spans, Traces, Metrics)

Tools:
macOS, Windows, linux, unix, Ubuntu, FlatCar; Concourse, GitHub Actions, Jenkins, Postman, Insomnia; terraform-docs, tflint; Amazon Web Services (API Gateway, Lambda, CloudWatch, CloudTrail, IAM, X-Ray, S3, CloudFront, DynamoDB, EC2, ECS, Route 53, WAF, VPC, EventBridge, CloudFormation templates, Secrets Manager), Azure (Entra ID, AKS, App Config, App Insights, Azure Kubernetes Service (AKS), Azure Postgres, SQL Managed Instance, Azure SQL, VNET, Subnet, Cosmos DB, KeyVault, Private Endpoint, Virtual Machines (Linux, Windows), Function Apps (Linux, Windows), Subscriptions, Multi-Region, Resource Graph Explorer, Azure Dashboards, Purview, SignalR, Azure Monitor, Azure Monitor Action Groups, Front Door, Stream Analytics, Azure Automation), Microsoft Intune, Venafi, Google Cloud ("GCP" - CloudRun, Firebase, Firestore, Cloud Storage, Monitoring, Alerts, Buckets, Prometheus), Prometheus, Netlify, Vultr, Tailscale, WireGuard, OpenVPN, PiVPN; ffmpeg, pybdub; PlantView, Apigee, DynaTrace; HashiCorp Envconsul, Vault; SonarQube, Checkmarx, Sonatype IQ; Artifactory, Sonatype Nexus, Liquibase; Git/GitHub, BitBucket; cURL, Snowflake, HomeBrew, direnv, Wireshark, Little Snitch; Splunk, PagerDuty; Apache Airflow, Kafka, ZooKeeper; Agile, Scrum, SAFe, JIRA, Confluence; OpenAI API (Whisper, GPT), Gemini API (Pro, 1.5 Flash), Eleven Labs API, TikTok API, Pexels API, Pixabay API, Playwright; Swagger, OpenAPI; JSON, YAML, XML, HTML; Parallels Desktop, VMWare Fusion, Citrix Workspace, Citrix Viewer, Windows App; ChatGPT (o1-preview, o1-mini, 4o, 3.5), Anthropic's Claude (3.5, 3.0 - Sonnet, Haiku, Opus), Google Gemini (1.5 Flash, Pro), DeepSeek, Google Gemma, Amazon CodeWhisperer, GitHub Copilot, Grok (1, 2), Venice.ai, Meta Llama (3.2); bazel, buildifier; Vanta; OhMyZsh, GitLens

Soft/People:
Project management, SDLC (software development lifecycle), talent development, mentorship, recruiting, public speaking, leadership, code review, problem-solving, decision-making (decision matrices), writing user stories, constructive feedback; thought leadership, technical sales, social engineering, champion building, consulting, sales techniques, persuasion; Champion Building; loss aversion framing ("pitfall-based sales")