JOHN PRATT

Vienna, VA (Open to relocation) | 571-293-1522 | johnpratt439@gmail.com
linkedin.com/in/john-pratt787 | john-pratt.com

EXPERIENCE

Pratt Solutions, Remote   **May 2020 - Present**
Lead Software Engineer, Founder/CEO, Coach

- Taking on IT/software engineering consulting & career/life coaching projects as my schedule allows while I hunt down my next full-time/long-term contract role
- **Enhanced Snowflake data retrieval by ~35% for Client's ~1M vehicles** with a Python REST API on AWS
- **Cut document upload times by ~91%** with automated Python Selenium web scraper
- **Reduced manual tasks by ~10% for Client's 100+ employees**/contractors via enhancements to internal employee-tracking web app using PHP, AWS ECS, Docker, PostgreSQL & CakePHP.
- **Boosted uptime by 12% & sped up incident responses by ~18% for Client's ~$140B/yr** loaning platform using OpenTelemetry, Prometheus, GCP Alerts, & GCP SLO/SLI policies
- **Generated ~100k TikTok views** with pipeline for AI-generated videos using Python, AWS, OpenAI's API, & NLP
- Built and led a global team of 5+ freelancers for BizOps

Northern Trust, Remote   **Feb 2024 - May 2025**
Senior Software Engineer

- **Secured ~$17T in client assets under custody/administration** by developing a Java Spring Boot library for Okta Auth that enhanced REST API security with JWT validation and Azure Entra integration, **reducing security incidents by ~25%**
- **Cut incident resolution times by ~19%** via Azure Monitor Action Groups & Alerts
- **Reduced deployment errors by ~40%** using a custom Azure Cosmos DB Terraform module; cut Azure/AWS costs by ~$35k/month by optimizing DBs & requiring approval for high-cost Terraform changes
- **Led migration & boosted database performance by 31%** via on-prem PCF OracleDB to Azure Microsoft SQL migration with VMs & Azure Data Factory
- **Increased remote Virtual Desktop login speed by 93%** for ~60 engineers using Python Selenium automation
- **Reduced Security incidents related to misconfigured Azure/AWS resources & Terraform modules ~18%** over 2 quarters thanks to my DevOps/SecOps best practice guides for team of ~60 engineers
- **Accelerated deployment speeds by ~40%+** by consolidating Terraform modules for Azure/AWS (subnets, VNETs, KeyVault, Cosmos DB, DynamoDB, Linux/Windows/Static Web Apps, Azure Kubernetes Service, Azure Container Apps & more) and improved resiliency for 100+ engineers by upgrading AzureRM modules to v4 with multi-region support
- **Reduced manual tasks by 45%** using PowerShell for email/calendar forwarding for team of ~60 engineers
- **Achieved 94% tagging coverage across Terraform-managed Azure/AWS resources** via automated tagging standards in Terraform service modules, improving cost allocation and resource traceability
- **Cut ~$100k/month in infrastructure costs** via Azure cost audits & custom Dashboard & KQL queries

Duke Energy, Remote   **Jul 2021 - Jan 2024**
Senior Software Engineer

- Saved Duke **~$1M in Labor Capacity annually** 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
- Built custom API documentation generator using EventBridge, CloudTrail, and more to streamline feature communication
- **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, Remote; McLean, VA; Richmond, VA   **Aug 2019 - Jun 2021**
Software Engineer; Technology Development Program Mentor; Software Engineer Intern
- Saved 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, Terraform, CloudFormation Templates & 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) - AWS, Python, Terraform, Java Spring Boot, AWS, Docker, protobuf/gRPC, React, Snowflake - including creating reusable React components

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

EDUCATION

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

PROFESSIONAL CERTIFICATIONS

Amazon Web Services   **2021-2024**
    Solutions Architect Professional, DevOps Engineer Professional, Developer Associate, Security - Specialty, SysOps Administrator Associate, AI Practitioner

Microsoft Azure   **2022-2025**
    DevOps Engineer Expert, Solutions Architect Expert, Developer Associate, Security Engineer Associate, AI Engineer Associate

Google Cloud   **2023-2025**
    Professional Cloud DevOps Engineer, Professional Cloud Developer, Associate Cloud Engineer, Cloud Digital Leader

HashiCorp   **2022-2024**
    Terraform Associate, Consul Associate

The Linux Foundation   **2022-2024**
    OpenJS Node.js Application Developer, Kubernetes and Cloud Native Associate

Databricks   **2024**
    AWS Platform Architect, Azure Platform Architect, Generative AI Engineer Associate, Databricks Fundamentals

Other organizations   **2020-2025**
    Certified Professional Python Programmer (PCPP - Python Institute); Docker Certified Associate (Docker, Inc); Certified Secure Software Engineer (Secure Code Warrior); GitHub Actions certified (GitHub); SnowPro Core (Snowflake); Liquibase Certified Practitioner (Liquibase); Certified Apache Kafka Developer (Confluent)

SKILLS

Languages, concepts:
Python (2, 3), Bash, HCL (Terraform OSS, Enterprise, Cloud; AWS, AzureRM, AzAPI, Google), JavaScript (Node.js), Docker, Kubernetes, Java (Spring Boot 3), PowerShell, Lua, Groovy; 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"); LLMs, Model Context Protocol (MCP)

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; React, Angular, AngularJS, Hammerspoon, AutoHotKey; OpenTelemetry (Spans, Traces, Metrics)

Platforms & 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], Container Apps, Azure Postgres, SQL Managed Instance, Azure SQL, Dashboards, VNETs, Subnets, Cosmos DB, KeyVault, Private Endpoint, Virtual Machines (Linux, Windows), Function Apps, Web Apps, Subscriptions, Multi-Region, Resource Graph Explorer, Purview, SignalR, 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; ServiceNow; JSON, YAML, XML, HTML; Parallels Desktop, VMWare Fusion, Citrix Workspace, Citrix Viewer, Windows App; ChatGPT (Operator, 4o, o3, o4, o1, o1-mini, 3.5), Anthropic's Claude (computer use, Opus Sonnet, Haiku), Google Gemini (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), prioritization of tasks, coordinating cross-functional teams; 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, consulting sales techniques, persuasion, champion building, loss aversion framing ("pitfall-based sales"), pre-sales engagements, customer engagement, qualifying, disqualifying, understanding customer needs, discovery, finding use cases, stakeholder management, strategic planning; requirement gathering, interpersonal skills