JOHN PRATT

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EXPERIENCE

Pratt Industries, Remote (Vienna, VA)   **May 2020 - Present**
Founder/CEO, Software 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.
- Building reusable Java Spring Boot library to handle Okta Authentication & Authorization for REST APIs, including JWT decoding via Azure Entra & token signing with key pulled from Azure KeyVault. Affecting ~***$20 trillion in managed assets***, the library is used in microservices for the client's ~***40k customers***
- Enhanced management of the client's ***1 million vehicles*** by developing Python REST API with endpoints for dynamic Snowflake queries, deployed to AWS.
- Improved security, standardization, efficiency of SDE by writing DevOps Best Practices guide for client+team of 20+ engineers.
- Shortened Virtual Desktop login+launch times by 88% via python browser automation + Hammerspoon script
- Built python browser automation script to scrape LinkedIn profile & automatically upload it to company professional certification system, shortening new certification upload times by 91%
- Enhancing php backend cert system to periodically sync new professional certifications with client cert system via integration with Credly & Accredible APIs.
- Sourced, trained & supervised international team of 5+ freelancers to handle day-to-day business operations work for the firm, including sourcing & qualifying new work leads
- ContentMachine - Gained ~100k views on TikTok so far by creating a fully automatic cloud-deployed pipeline for AI-generated short-form entertaining videos. Uses 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 with 5+ Duke "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

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

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, 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**
    Solutions Architect Expert, DevOps Engineer Expert, Cybersecurity Architect Expert, Developer Associate, Administrator Associate, Security Associate, Network Engineer Associate, AI Engineer Associate, Data Engineer Associate, Database Administrator Associate, 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 (Python, Scala), AWS Platform Architect, Azure Platform Architect, GCP Platform Architect, Databricks Fundamentals, Data Analyst Associate

(Other organizations)   **2020-2024**
    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)

SKILLS

Languages, concepts:
Python (2, 3), Bash, Terraform (OSS, Enterprise), JavaScript (Node.js, React, Angular), Docker, Kubernetes, Java (Spring Boot 3), Go, PowerShell, Lua, Scala; unit testing, integration testing, smoke testing, performance testing, test-driven development; CI/CD (continuous integration and continuous deployment), DevOps, GitOps, Databases, SQL (PostgreSQL/Postgres, MySQL, SQLite); NoSQL (DynamoDB, mongoDB); microservice architecture, cloud pipelines, data

pipelines, CI/CD pipelines; Object Oriented Design; REST/RESTful APIs; OAuth2 flow; cloud infrastructure, 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; containerization; large language models, prompt engineering; distributed systems; B2B SaaS applications

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

Tools:
macOS, Windows, linux, unix, Ubuntu; Concourse, Postman, Jenkins; 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, Azure SQL Managed Instance), Google Cloud ("GCP" - Firebase, Firestore, etc.), Netlify; ffmpeg, pybdub; PlantView, Apigee, DynaTrace; HashiCorp Envconsul, Vault; SonarQube, Checkmarx, Sonatype IQ; Artifactory, Sonatype Nexus, Liquibase; Git/GitHub, BitBucket; cURL, Snowflake, HomeBrew; Splunk, PagerDuty; Apache Airflow, Kafka, ZooKeeper; Agile, Scrum, SAFe, JIRA, Confluence; OpenAI API (Whisper, GPT), Eleven Labs API, TikTok API, Pexels API, Pixabay API, Playwright; Swagger, OpenAPI; JSON, YAML, XML, HTML; Parallels Desktop, VMWare Fusion, Citrix Workspace, ChatGPT, Amazon CodeWhisperer, Claude, GitHub Copilot

Soft/People:
Project management, SDLC (software development lifecycle), talent development, mentoring, recruiting, public speaking, leadership, code review, problem-solving, decision-making, writing user stories, constructive feedback