

# JOHN PRATT

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## EXPERIENCE

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### Pratt Industries, Remote (Vienna, VA)

May 2020 - Present

*Founder/CEO, Software Engineer, Coach*

- Taking on local & non-local life coaching, career coaching & IT consulting projects as my schedule allows; looking to wind down operations & take on my next full-time/long-term contract role
- 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**

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### **Georgia Institute of Technology, Atlanta, GA**

Bachelor of Science - Computer Science (concentrations: Artificial Intelligence, People)

### **Amazon Web Services**

**2021-2024**

Certified Solutions Architect - Professional (SAP-C02), Certified Solutions Architect - Associate (SAA-C02), Certified Developer - Associate (DVA-C02), Certified SysOps Administrator - Associate (SOA-C02), Certified DevOps Engineer - Professional (DOP-C02), Certified Advanced Networking - Specialty (ANS-C01), Certified Advanced Security - Speciality (SCS-C02), Certified Cloud Practitioner (CLF-C02)

### **Google Cloud**

**2023-2024**

Certified Professional Cloud Developer, Certified Professional Cloud DevOps Engineer, Certified Professional Cloud Architect, Certified 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**

**2024**

Azure Solutions Architect Expert, Azure Developer Associate, Azure Administrator Associate, Azure Fundamentals

### **(Other organizations)**

**2020-2024**

CompTIA Security+ , CompTIA Network+ (CompTIA); Certified Kubernetes Administrator, Kubernetes Cloud Native Associate (Linux Foundation); Docker Certified Associate (Docker Inc); Certified Secure Software Engineer (Secure Code Warrior)

## **SKILLS**

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### **Languages, concepts:**

Python (2, 3), Bash, Terraform (OSS, Enterprise), JavaScript (Node.js, React, Angular), Docker, Java (Spring Boot), Go, PowerShell; 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); 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, requests\_mock, moto, pandas, NumPy, 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; Maven, JUnit, PowerMock, Mockito, Apache Avro

### **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 (Active Directory/Entra ID), Google Cloud ("GCP" - Firebase, Firestore, etc.), Netlify; ffmpeg, pydub; PlantView, Apigee, DynaTrace; HashiCorp Envconsul, Vault; SonarQube, Checkmarx, Sonatype IQ; Artifactory, Sonatype Nexus; 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; 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