

# Carl Jerritt Aquino

## Software Engineer

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### Profile

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I am a software engineer with experience in Javascript, TypeScript, React/Redux, Go, PostgreSQL, MongoDB, AWS, and GCP. I am a co-creator of Pilot, an open-source, multi-cloud framework for provisioning an internal PaaS with a workflow-agnostic build, deploy, and release pipeline.

### Experience

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#### **Pilot Framework, Co-Creator, Software Engineer**

May 2021

<https://pilotframework.com/> 📄

Pilot is an open-source, multi-cloud framework for provisioning an internal PaaS with a workflow-agnostic build, deploy, and release pipeline.

Technologies: TypeScript, Go, gRPC, Docker, Terraform, AWS / GCP

- Led the design of how Pilot automates the provisioning of resources to AWS and GCP using Terraform.
- Utilized a custom Docker image that provides the custom plugins needed for multi-cloud deployments.
- Led and designed CLI tool for Pilot setup, configuration, application deployment, SSH access, and teardown.
- Contributed to manual testing of internal PaaS components and lifecycle of deploying applications to ensure expected functionality.
- Co-authored a technical case study documenting our design decisions and challenges.
- Designed diagrams to visually explain Pilot's architecture.

#### **MR Systems, Applications Engineer**

May 2017 – Sep 2020

- Technical Lead - Led a team in developing two distributed applications that communicate to and store data from devices at different locations
- Designed, developed and deployed Human-Machine Interfaces (HMI) to PLC-based automation and control systems for the water and wastewater industry using industry standard HMI software
- Built an internal library in Python to improve developing features for HMI interfaces.
- Designed and developed automated reporting systems using SQL and Excel to improve plant observability
- Troubleshoot communications in industrial computer networks.

#### **CITI, LLC, Project Engineer**

Nov 2015 – May 2017

- Designed and developed HMI applications using Wonderware's InTouch or Inductive Automation's Ignition.
- Designed HMI applications that integrate with PLC and third-party vendor systems
- Develop project specific documentation.

### Skills

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**Languages** (JavaScript, TypeScript, Ruby, Go, SQL, HTML, CSS),

**Frameworks** (React/Redux, Express, Node, Handlebars, jQuery),

**Technologies** (Git/GitHub, Docker, REST APIs, Terraform, Waypoint, PostgreSQL, MongoDB, VMWare),

**Cloud** (EC2, ECS, ECR, S3, IAM, VPC, ALB, CloudFront, RDS, Compute Engine, Cloud Run, Google Cloud Storage, Container Registry, Cloud CDN, Heroku, Digital Ocean)

### Education

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**B.S. Computer Engineering, Mercer University**

2010 – 2015