

# Pururva Lakkad

 [pururval.github.io](https://github.com/pururval)  
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## Work Experience

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**Aries Computer Systems, Inc.** • Sr Software Engineer Mar 2023 - Present

- Developing, documenting, testing, and debugging applications and software components for market sale and proprietary software for internal use in [Python](#) and [C++](#).
- Contributing to and maintaining the deployment kits and release pipelines in [Jenkins](#).

**Stark and Wayne + Qarik Group** • Software/Cloud Engineer Sep 2021 - Jan 2023

- Developed and maintained [SHIELD data protection](#) as a subject matter expert from v8.7.4 to v8.8.5.
- Debugged, developed and addressed customer requests for bug fixes and new feature updates.
- Led the backup-restore plan which included developing, deploying, testing, training, and documenting the disaster-recovery strategies for different databases and distributed systems onto [AWS S3](#) and [RDS](#).
- Contributed to, deployed, debugged and maintained large scale distributed systems in containers and VMs on [AWS](#), [GCP](#), [Kubernetes](#), [Cloud Foundry](#) and pipelines on [Concourse CI/CD](#).
- Created database schemas for SHIELD to support storages for new features with PostgreSQL.
- Experienced working on authentication protocols, such as [SAML](#), [OpenID Connect](#), and [OAuth2](#) using [Okta](#).
- Helped build and test [ops-scripts](#) to improve deployment and credential management for env manifests leveraging automation with [terraform](#).

**SitusAMC** • Software Engineer Aug 2020 - Sep 2021

- Served as technical expert on development projects, participated in full development life cycle to build SQL reports, microservices, and a dashboard for loan mortgage analysis.
- Experienced writing and maintaining source code for web services (RESTful, SOAP) applications using [.NET](#), [C#](#), [Typescript](#), [React](#), [T-SQL](#), [Azure](#).

**Stark and Wayne LLC** • Software Engineer Intern May 2019 - Aug 2019

- Developed a plugin and tests for [etcd](#) in SHIELD and Phalanx - a testing suite for SHIELD's full-stack functionality
- Designed a data serialization format in [Python](#) and [Golang](#) to encode and store the [etcd](#) key values

**University at Buffalo** • Undergraduate Teaching Assistant Jan 2017 – May 2020

- Designed homeworks/projects, performed grading, and instructed students both in group settings and 1-on-1 for Operating Systems ([C](#)), Systems Programming ([C](#)), Intro to CS I and II ([Python](#)), and the Internet-class.
- Tutored on programming assignments related to Linux scripting, debugging, CPU, memory allocation, caching, processes, threads, networking, races, compilers, x86 architecture

## Technical Skills

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**Languages** | [C](#), [C++](#), [Python](#), [Golang](#), [.NET](#), [React](#), [C#](#), [SQL](#), [HTML](#), [JavaScript](#), [Scala](#), [Java](#), [Shell scripting](#)

**Tools** | [Linux](#), [Kubernetes](#), [AWS](#), [Cloud Foundry](#), [Bosh](#), [Git](#), [Docker](#), [Concourse](#), [Terraform](#), [Jenkins](#), [GitOps](#), [Vault](#), [MS SQL](#), [SMS](#), [Prometheus](#), [Helm](#), [Node.js](#), [Express](#), [PostgreSQL](#)

## OpenSource Development

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(more at [github.com/pururval](https://github.com/pururval))

**SHIELD** | [Golang](#), [JavaScript](#) | An enterprise cloud backup and restore solution

- Added retry-handling to SHIELD, which enables users to have customized backup retries on backup failures.
- Developed an [OAuth2](#) integration with [okta](#) for SHIELD, with user-group mappings schema and [OIDC](#) implementation
- Devised, tested and documented restore/decode of backed up [Hashicorp Vault](#) data from [AWS S3](#) buckets.

**Blacksmith** | [Golang](#), [JavaScript](#) | A service broker for Cloud Foundry

- Configured limits on number of services created and displayed on blacksmith dashboard.
- Debugged and added support to the plan configuration for [rabbitmq-forge-boshrelease](#)

**Genesis** | [Shell](#), [Golang](#) | A Bosh deployment paradigm

- Contributed to and maintained the deployment kits and bosh-releases including the [cf-kit](#), [bosh-kit](#), and [shield-kit](#).

### ParkAtTheMoon | [Python](#), [OpenCV ML](#)

- Built an app with a team to find empty parking spots on college campus using Raspberry Pi and OpenCV ML model

### ShowerDuino | [C](#), [Python](#) | UB Hacking project

- Coded an arduino101 in C and python to rotate a stepper motor used to turn on a shower handle

### Interpreter | [Python](#)

- Wrote a script that created multiple stacks of working environment, iterated on data structures and executed functions with restricted scope

### ELN Webscraper | [HTML](#), [Python](#)

- Built a script to analyze and cleanse data on campus websites that have information regarding particular keywords

### GroupMeBot | [Python](#), [Heroku](#)

- Made a bot that responds to a query "who's on duty" which parsed and collected data from Google Calendar

## Education

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**University at Buffalo** Bachelors of Science in Computer Science

Jun 2020

**Relevant Courses** Algorithms, Data Structures, Operating Systems, Systems Programming, Machine Learning, Computer Security, Modern Networking Concepts, Infrastructure Operations, Distributed Systems, Programming Languages, Computer Organization