

Cedric Nagata

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Education

UNIVERSITY OF WASHINGTON

BS in Computer Science, GPA: 3.71/4.0

Interdisciplinary Honors College

Seattle, WA

June 2024

Relevant Coursework: Systems Programming, Data Structures and Algorithms, Artificial Intelligence, Machine Learning, Networks, Computer Security, Data Management & Querying

Relevant Experience

TYLER TECHNOLOGIES

Software Engineering Intern (Public Safety)

June – September 2023

- Used Docker to create a local development environment with images for Django, Form.io, Elasticsearch, and PostgreSQL, now in use by hundreds of developers
- Created a secure website tool for document-sharing using UUID, Django Admin functionality, and Form.io now used by dozens of clients
- Created an urgent system messages functionality for a client

TYLER TECHNOLOGIES

Software Engineering Intern (Agency Intelligence)

June – September 2022

- Created a high-speed search functionality using Django, Python, Elasticsearch, and Form.io that processes thousands of data entries from across the country
- Created an advanced search capability for searching by combinations of specific criteria. Specialized in Python, Django, and Database Management

Technical Skills & Projects

Programming & Frameworks: Python, Java, C, C++, C#, JavaScript, HTML/CSS, SQL, Django, React

Software Applications: Docker, Git, Linux, Azure, MongoDB, PostgreSQL, Elasticsearch

Distributed Key-Value Service (Java)

- Created a scalable, fault-tolerant, distributed database system, similar to Amazon's DynamoDB
- Utilized sharding by mapping keys to shards and distributing workloads with a load-balancer
- Used Paxos to build replicated state machines comprised of servers to serve each shard

Flight Service App (Java, SQL, Azure)

- Designed and coded functions for a Flight Service App including creating users, secure logins, searching for flights, creating itineraries, booking flights, and storing reservations
- Created a Java backend and used SQL to query against a flight database in Microsoft Azure
- Implemented concurrency to rollback conflicting commits and ensure no double bookings

Multithreaded Web-Based Search Engine (C/C++, HTML)

- Implemented a memory-to-disk index marshaller to convert a file subtree into a file index in an architecture-neutral format
- Made a file indexer to service lookups from the index and a query processor to query the index
- Created a multithreaded web server to host the query processor and hold client connections

Leadership

UW Society for Advanced Rocket Propulsion (SARP) – ACS Project Lead

2021 – 2023

- Led a team of six developing software and hardware for Advanced Control Systems (ACS)
- Used Thrust Gimballing and a Reaction Control System (RCS) to guide a rocket outside Earth's atmosphere