

David Sevilla

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Education

- Jan 2018 – Dec 2020 **M.S. Computer Science**, *Stevens Institute of Technology*, Hoboken, NJ.
◦ GPA: **3.56/4.0**. Part of an accelerated program.
- Aug 2016 – May 2020 **B.S. Computer Science**, *Stevens Institute of Technology*, Hoboken, NJ.
Minor in *Pure and Applied Mathematics*.
◦ GPA: **3.75/4.0**. On Dean's List most semesters.
◦ President of Upsilon Pi Epsilon (Computer Science Honors Society).

Experience

- Sep 2020 – Dec 2020 **Software Engineer Intern**, *Datadog*, New York, NY.
Worked in the Web Reliability Engineering team supporting the Datadog API layer.
◦ Managed several **Kubernetes** deployments of **Redis** cluster web caches.
◦ Implemented a service proxy sidecar using **Envoy**'s gRPC API for dynamic service discovery, rate limiting, circuit breaking, and authentication. [Python, Go, Docker]
◦ Added metrics collection and configuration file templating and generation to the sidecar.
- Jun 2020 – Aug 2020 **Software Engineer Intern**, *Facebook*, Menlo Park, CA.
Cut behavior testing time for custom search result rankers from days to minutes.
◦ Designed efficient Python bindings for a generic search result ranker. [C++]
◦ Wrote a library to execute the ranker on large search datasets from **Hive**. [Python, SQL]
◦ Improved initial ranker execution speed by 500% using parallel batch processing.
- Jun 2019 – Aug 2019 **Software Engineer Intern**, *JPMorgan Chase*, Jersey City, NJ.
Saved 300 hours of yearly effort by creating a weekly financial forecasting dashboard.
◦ Augmented a RESTful web service with **Spring Boot** and **Hibernate**. [Java, SQL]
◦ Migrated the code base into distinct microservices, and deployed with **Cloud Foundry**.
- Jun 2018 – Aug 2018 **Software Engineer Intern**, *JPMorgan Chase*, Jersey City, NJ.
Provided transparency for calculation data to users of a financial stress-event simulator.
◦ Implemented a **Hadoop** big data pipeline using **Spark** and **Impala**. [Python]
◦ Redirected simulator debug info dumps to this pipeline. [Java, Bash, SQL]
- Sep 2017 – Aug 2020 **Teaching Assistant**, *Stevens Institute of Technology*, Hoboken, NJ.
(semesterly) ◦ Held office and lab hours. Designed, graded, and automated computer science assignments.

Projects

- Sep 2019 – May 2020 **Content Management System**, *Life Skills Software*, Stevens Senior Design.
Service to upload and review educational media supporting special-needs classes.
◦ Designed the content upload API, models, and object storage logic. [Go, PSQL, S3]
◦ Implemented a role-based authentication model via **JWT** based middleware. [Go]
◦ Achieved significant code coverage. Ran tests with **Docker** and **Gitlab CI/CD**. [Go]
- Spring 2020 **Oat Compiler**, *CS 516 - Compilers*, Stevens.
Compiler for a small C-like language called Oat.
◦ Wrote modular AST translation code from Oat to LLVM and x86 assembly. [OCaml]
◦ Extended the compiler frontend with type checking and lattice-based static analysis passes.

Skills

Languages Java, C, Python, OCaml, Coq, Go, JavaScript, Bash, SQL
Technologies GNU/Linux, Git, Mercurial, Docker, Kubernetes CLI, AWS CLI (EC2, EBS, S3)