Bernard Zhao

bernardzhao@berkeley.edu
bernardzhao.com

LINKS

Github:// BernardZhao
LinkedIn:// Bernard Zhao

EDUCATION

U.C. BERKELEY
BA in Computer Science
Expected May 2021
Cum. GPA: 3.81 / 4.0
Major GPA: 3.81 / 4.0
Upsilon Pi Epsilon - CS Honor Society member

COURSEWORK

Discrete Math and Probability
Operating Systems, Networks
RISC-V and CPU Architecture
Algorithms, Data Structures
Computer Science Pedagogy
Circuit and Systems Design
Unix Tools and Scripting
Artificial Intelligence
Computer Security
Image Processing
Database Design

SKILLS

Fluent:
- Python
- Javascript, Node
- Golang
- HTML & CSS

Familiar:
- Java
- C
- Scheme, Lisp
- SQL, Oracle TSQL

Frameworks & Other:
- Vue, React
- Django + REST Framework
- GraphQL, Graphene
- Jenkins, TravisCI
- Docker, Docker Compose
- Kubernetes

EXPERIENCE

FACEBOOK | Systems and Software Engineering Intern
June 2020 – Aug 2020 | Menlo Park, CA
- Lead development and architectural design of a new service that creates distributed MySQL replica sets on the fly for all custom workloads at Facebook.
- Wrote asynchronous Python to avoid blocking calls, gather commands on multiple host instances in parallel, and support flexible rollback of failed steps.
- Deployed service onto Thrift RPC server to queue jobs in topics for containerized workers to drain and work on independently.
- Worked with the Raft consensus protocol to support both next generation MySQL and traditional log tailing replication during custom Flexifraft rollout.

ZANBATO | 8VC Fellow & Software Engineering Intern
May 2019 – Aug 2019 | Mountain View, CA
- Translated broker needs into new features on the ZX digital exchange, by utilizing new React components, Redux forms, HelloSign API, and Django REST Framework serializers to calculate and manipulate the valuation and status of private securities.
- Implemented an experimental GraphQL endpoint for buy/sell order data using Graphene and Relay.
- Increased overall test coverage by 2% over pytest API, Selenium integration, and Jest Enzyme tests.

INTEL | Software Engineering Intern
May 2019 - Aug 2019, May 2018 – Aug 2018 | Folsom, CA
- Built functionality for viewing and manipulating lab planning and test statuses in a larger org-wide web tool through Django models, endpoints, and Vue components.
- Live pages received thousands of requests per week, by 60 unique lab members.
- Developed Python scripts to automate SSD testing, scrape drive data, and a fair scheduling algorithm for test suites between varying system configurations.
- Implemented data syncing with lab dbs using SQL queries and stored procedures.

PROJECTS (SEE MORE ON GITHUB)

SOURCEBOUND | Clifbar Fall 2018 - Spring 2019
- Used Node and Parse to create a food recipe generation platform including user/team ACLs, ingredient and recipe versioning, and notifications.
- Worked with Clifbar client to deliver food scientists needs including nutrient data visualization and nutritional label PNG exports from a web application.

PIXELSORT
- Designed a python script to distort detected faces in images with pixel-sorting using dlib facial recognition and Pillow, with over 300 stars on Github.

OPEN COMPUTING FACILITY | General Manager, Spring 2018 - Present
- Built a Golang websocket application to queue music online on a local mpd server.
- Set up cluster-wide logging in Kubernetes using Fluentd to direct logs to Loki for use with existing Prometheus instance.

ACTIVITIES

Spring 2019 - Present	Head Facilitator and Lecturer	Linux Sysadmin Decal
Fall 2019	UGSI Reader	CS162 - Operating Systems