Gerard R. Bentley

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Work Experience

Python Developer

Cascade Financial Services

January 2021 - Present

Servicing Support Team

Chandler, Arizona (Remote)

- Securitized first loan portfolio with simulated cash flows using Monte Carlo methods with Python, Pandas, Numpy.
- Increased collections productivity with daily predictions of borrower missed payments.
- Automated business critical ETL batch jobs to maintain records across more than a dozen third-party, in-house, and cloud-based systems primarily with Python, Jenkins, Postgres, and AWS EC2.
- Communicated with executives, business analysts, and project managers to gather technical requirements necessary to deliver new projects and enhance legacy ones. Migrated dozens of legacy pipelines from SQL Server to Postgres.

Al Python Mentor 1:1

Al Camp

September 2021 – Present

Palo Alto, California (Remote)

- Mentored training and deploying a YOLO model with Python on an Ubuntu Cloud GPU and Streamlit Cloud.
- Held 1:1 sessions with four students to teach Python, Linux, and AI skills needed to build AI powered products.

Computer Science Resources Contractor

Edlyft

November 2020 - January 2021

Oakland, California (Remote)

- Created exam level questions for undergraduate college students in Data Structures courses, including short and long form video and text explanations. Coding questions written for students learning Java and C++.
- Collaborated with company founders and three other colleagues to delegate tasks, critique, and improve resources.

Post-Bacc Research Assistant

Pomona College

May 2019 - August 2020

Claremont, California

- Co-authored first paper for `FAIM` research lab on applying computer vision techniques to videogame screenshots.
- Developed web-based system with Twisted, Postgres, and Docker for tagging videogame images with semantic affordance information.
- Collaborated with professor and supervised eight to ten undergraduate students per semester to explore topics in computer vision, web applications, and system administration, focused on Linux, Python, Flask, and Pytorch

Software Developer Intern

Revenue Management Systems

May 2018 - August 2018

Seattle, Washington

- Improved portability and scalability of a SOAP monitoring service by re-implementing with .NET CORE REST api
- Improved user experience and security by re-implementing iOS and Android apps with features such as native navigation, data filters, JWT authentication

Projects

- (2022) YOLO PC Part Detector: Worked remotely with a high-school student to guide them through the machine learning project lifecycle. Data was gathered via Bing Image Search API and labeled with YOLOLabel. Model was trained with Darknet in a linux environment and evaluated by IoU and confusion matrix. App was built with Streamlit and CI/CD pipeline via Github and Streamlit Cloud.
- (2022) Streamlit Creators: Invited to collaborate with developers and creative contributors to the Streamlit open-source community. Portfolio including Time Series Forecasting, OCR apps, and Personal Stock Portfolio View

Education

• **B.A. Computer Science,** Pomona College.

2015-2019

Technologies and Languages

• Languages: Python, SQL, Typescript, C#

• Technologies: Streamlit, Pandas, Numpy, Postgres, AWS, Unix, Git, Docker, Jenkins, Pytorch

Publications

• G. Bentley and J. C. Osborn. "The Videogame Affordances Corpus." In Workshop on Experimental AI in Games, 2019.

• A. Sarkar, A. Summerville, S. Snodgrass, **G. Bentley**, and J. C. Osborn. Exploring level blending across platformers via paths and affordances. In Artificial Intelligence and Interactive Digital Entertainment Conference, 2020

Other Interests

Ultimate Frisbee, Rock Climbing, Guitar