Joseph Yu

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

B.A. Computer Science & Statistics
Grad. May 2022 | Berkeley, California
Cum. GPA: 3.61 / 4.0

GLENDA DAWSON HIGHSCHOOL

Grad. May 2018 | Houston, Texas
Cum. GPA: 4.0 / 4.0

COURSEWORK

UNDERGRADUATE

• Introduction to Database Systems
• Structure and Interpretation of Computer Programs
• Data Structures
• Great Ideas in Computer Architecture
• Efficient Algorithms and Intractable Problems
• Discrete Mathematics and Probability Theory

SKILLS

PROGRAMMING

Over 1000 lines:
Java • C • Python • Assembly • NumPy • Pandas • SQL

Over 500 lines:
PyTorch • TensorFlow • HTML • CSS • JavaScript • Scikit-Learn

Familiar:
OpenMP • AWS • Gurobi Optimizer • Spark • SIMD • LaTeX

LANGUAGES

Fluency
English • Mandarin

ORGANIZATIONS

STUDENT ASSOCIATION OF APPLIED STATISTICS

• Worked with other members on modeling real data using k-nearest-neighbors, decision trees, and neural networks

BERKELEY ANOVA

• Provided students in low-income school districts with a introductory computer science education

PROFESSIONAL EXPERIENCE

UC BERKELEY ELECTRICAL ENGINEERING AND COMPUTER SCIENCE | Academic Intern

Jan 2019 - May 2019 | Berkeley, CA
• Academic Intern for CS61A: Structure and Interpretation of Computer Programs
• Debugged Python and SQL assignments and projects during labs and office hours.
• Explained concepts such as recursion, functions, and trees.

CODE NINJAS | Computer Science Tutor

June 2017 – Aug 2018 | Houston, TX
• Educated children between the ages of seven and fourteen on the fundamentals of game and website creation.
• Taught children JavaScript, HTML, CSS, and Scratch.

PRIVATE TUTORING | Computer Science Private Tutor

Aug 2017 – July 2018 | Houston, TX
• Worked as a private computer science tutor for a brother and sister who were seven and eight, respectively.
• Taught them the basics in website and game creation using HTMl, CSS, and JavaScript.

PROJECTS

FINE-GRAINED VEHICLE CLASSIFICATION

Jan 2020 - Current | Berkeley, CA
• Built NTS, Dense, and ResNet models to predict Make, Model, and Year of Production of various fine-grained car images ranging from security footage to online sources for Autel, a car diagnostics company.

DATA CONSULTING FOR GRANDMARK INTERNATIONAL

Sept 2019 - Dec 2019 | Berkeley, CA
• Developed a web application using Python Flask for a car parts company in South Africa.
• Built a model to help forecast demand of car parts as well as dates of peak sales, optimal dates to restock, and how to minimize lost sales.

ASSEMBLY NEURAL NETWORK Oct 2019 | Berkeley, CA

• Developed ReLU, matrix multiplication, addition, and subtraction using RISC-V, an Assembly language, for use in a convolutional neural network to classify handwritten digits.

RANDOM WORLD GENERATOR April 2019 | Berkeley, CA

• Used Java to build an engine that can generate a 2D-tile based map with random rooms and hallways to explore similar to retro NES games
• Added the ability for the user to interact with the world and "win" conditions.

BEARMAPS April 2019 | Berkeley, CA

• A web application that will display a map of Berkeley and find the shortest path between two locations
• Uses KDTrees and TrieSet as Data Structures and A* algorithm to find shortests path