BOB FENG

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Education

UNIVERSITY OF CALIFORNIA, BERKELEY *Class of 2019 (Junior)*

B.A. Computer Science

Relevant coursework:

- UI & UX (Html, CSS, JavaScript/JQuery)
- Security & Operating Systems (Python, C)
- Discrete Math, Algorithms, Probability
- Graphics (C, C++)
- Database Management Systems (Java, SQL)
- Artificial Intelligence and Intro to ML (Python)

Projects

PintOS *Fall 2017*

Operating System

- Added efficient thread functionality such as non-busy waiting and priority scheduling utilizing synchronization variables like semaphores, locks, and condition variables.
- Implemented syscall functionality that maintained ACID standards to prevent against failure.
- Created a virtual cache using Clock Replacement Algorithm and write through to maintain RAM efficiency.

Database *Spring 2017*

Database Management System

- Developed a DBMS that handles constant length records and utilizes data structure such as B+ trees to quickly organize pages and increase efficiency in data retrieval.
- Utilize knowledge of memory access patterns to design time-efficient query operators including Grace Hash Join and Sort Merge Join that take advantage of spatial locality to quickly process information.

Pacman *Fall 2016*

Artificial Intelligence Agent

- Designed AI agents that preform complex search tasks such as maze navigation and location inference utilizing algorithms such as Kruskal's algorithm and Bayesian Nets.
- Employed AI and machine learning techniques like expectimax and minimax, model-free reinforcement learning algorithms, Markov models to better navigate the agent through simulated environments.

Organizations

PBL – Berkeley Phi Beta Lambda *Fall 2016 – Current*

Consulting and Internal Networking Committee Chair

- Planned 30+ member retreats, internal events, and large-scale activities for members to bond as a team.
- Preformed and taught case studies of companies and developed new marketing and branding strategies focused on increasing revenue and decreasing costs.

Tech Team

- Gathered schedule availabilities of members in csv and converted to JSON format for further processing.
- Worked with senior officers to develop an algorithm based on simulated annealing to generate tabling slots to maximize the exposure of each member to any other.
- Developed interactive front-end website to host the generated tabling schedules for club-wide use.
- Manage day to day workings of the portal (portal.berkeley-pbl.com, pbl.link/tabling).

Experiences

CS61A Course Staff *Spring 2016 – Spring 2017*

Lab Assistant and Tutor

- Tutored students one on one about topics such as object oriented programming, recursion, and run time.
- Paired up with one struggling student and assisted him in organization and studying over the semester.
- Guided students through pre-designed labs on topics that ranged from syntax to tree recursion.

Coding Languages: Python, Java, C, C++, HTML, CSS, JavaScript, JQuery, and SQL

Interests: Skiing, Longboarding, Hiking, Movies, Physics, and Pen Spinning