Sean Farhat

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EDUCATION

UC BERKELEY
B.S. in Electrical Engineering and Computer Science
Expected May 2020 | Berkeley, CA

LINKS

Github:// **sfarhat**
LinkedIn:// **seanfarhat**
Website:// **sfarhat.github.io**

COURSEWORK

UNDERGRADUATE
Artificial Intelligence
Robotics
Technological and Social Networks
Computer Security
Algorithms
Probability and Random Processes
Data Structures
Computer Architecture
Designing Information Devices
Cognitive Neuroscience

SKILLS

PROGRAMMING
Proficient
Java • Python • C • HTML • CSS • jQuery

Familiar:
Scheme • SQL • RISC-V • JavaScript • C#

SOFTWARE
Unity • Unreal • LaTeX • Git

AWARDS

Regents' and Chancellor's Scholarship
Dean's List (2016 - 2018)
Tau Beta Pi Engineering Honor Society
Eta Kappa Nu EE/CS Honor Society
3rd place/260, TI Robot Car Competition

EXPERIENCE

UC BERKELEY EECS DEPARTMENT | uGSI
Jun 2018 - Present | Berkeley, CA

- Taught weekly discussion sections, labs and office hours each week to **45+ students** for introductory Computer Architecture course, **CS 61C** , with an average rating of **4.5/5** (above department average)
- Created worksheets, review materials, labs, and exam questions for topics such as number representation, **C** , RISC-V, **instruction/data/thread level parallelism** , **MapReduce** , caches, virtual memory, and CPU design
- Managed RISC-V emulator project by **creating end-to-end autograder** , designing test cases, and **expanding coverage** to include entire instruction set

ETA KAPPA NU | Tutoring Officer
Jan 2018 - Present | Berkeley, CA

- Organized logistics and **trained 50+ tutors** for daily office hours covering entire lower division EE/CS curriculum
- Planned and **taught review sessions** before midterms and finals for EE/CS courses (**150+ attendance** per session)

UC BERKELEY SWARM LAB | Research Assistant
https://github.com/sfarhat/donkey-car-controller

- Investigated methods to enable **autonomous micro-robots** through various methods, with a concentration on **low-power convolutional neural nets**
- Wrote end to end system utilizing **Python** , **OpenCV** , and **Keras** to apply **Canny Edge Detection** , monocular **visual odometry** , and **PID control** to take in sequence of low-resolution images and determine optimal trajectory

PROJECTS

SECURE FILE STORAGE | Python
Designed and implemented a secure version of a Dropbox-style file sharing system using the **PyCrypto API** to ensure **cryptographically secure** uploads, downloads, sharing, and revocation. Utilized **Merkle Trees** along with other data structures to **increase efficiency** of uploads by a factor of **400**

MILLINGO | HTML, CSS, jQuery
sfarhat.github.io/millingo
Designed and created user friendly website to assist older generations with understanding **Mill** enial **Lingo**

NINJANIMALS | Unity, C#
On App Store under publisher Alex Fargo
Designed, created, and published on the App Store a 2D infinite side-scroller mobile game, complete with tutorial, one tap controls, local score rankings, shop, and advertisement integration