Tamara Star Vilaythong

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Education

- **University of California, Berkeley** *GPA: 3.625*
  Bachelor of Arts, Computer Science *Expected Graduation 2021*

Highlighted Projects - *Email for Bitbucket repository*

Personal Website (*HTML & CSS*): *tamvilaythong.github.io*

- Designed and developed personal website from scratch using HTML, CSS, JavaScript, jQuery, and Bootstrap

Bear Maps (*Java*):

- Google Maps inspired web-based routing application. Implemented the **back end** for the mapping and routing of Berkeley by using existing front end and OpenStreetMap mapping data
- Developed map rastering, zoom functionality, and clicking for location selection
- Used a SAX parser with an OSM XML data file to build a graph representation of the Berkeley area, and applied **A* algorithm** with the graph representation to implement shortest-path routing

2D Tile Game (*Java*):

- Designed and developed two-player keyboard game from scratch with provided TileEngine Renderer
- Utilized arrays and **pseudorandom number generator** for the world generation seed/layout
- Incorporated StdDraw and Serializable for the game UI behavior

VR Bowling Hackathon Project (C#):

- Created a VR Bowling Game at SodaHacks 2018 in a team of 4 with a top 8 finish
- Used **Unity 3D** with Oculus Integration and C#
- Contributed to the VR testing and developed the game environment/setting

Experience

Data 8 Undergraduate Student Instructor *January 2019 – Present*

- *UC Berkeley Department of EECS – Berkeley, CA*
  - Instruct a lab section of around 30 students for an introductory data science class of 1500 students
  - Hold office hours and assist students on Piazza for questions about Python-based homework and projects, and grade midterms and finals

Data 8 Course Staff Tutor *August 2018 – December 2018*

- *UC Berkeley Department of EECS – Berkeley, CA*
  - Instructed two small group tutoring sections for an introductory data science class of 1300 students

Related Coursework

- **CS 170:** Efficient Algorithms and Intractable Problems (In Prog.)
- **CS W186:** Introduction to Database Systems (In Prog.)
- **STAT C100:** Principles and Techniques of Data Science
- **CS 61C:** Machine Structures (Fall 2018)
- **CS 70:** Discrete Mathematics and Probability Theory
- **CS 61B:** Data Structures
- **CS 61B:** Data Structures
- **STAT C8:** Foundations of Data Science
- **Math 54:** Linear Algebra and Differential Equations
- **EE 16A:** Designing Information Devices and Systems I
- **CS 61A:** Structure and Interpretation of Computer Programs

Skills

- **Highly Skilled:** Java, Python
- **Familiar:** C, C#, HTML, CSS, Scheme, SQLite
- **Platforms:** Git, Bitbucket, Vim, IntelliJ IDE, Microsoft Office, Sublime

Leadership and Extracurricular Activities

- **Association of Women in EECS:** Member (UC Berkeley)
- **Rewriting the Code Fellowship:** Fellow
- **Sharp Hospital Volunteer:** Guest Ambassador and Surgical Intensive Care Unit (223 Hours in San Diego)