

Mathew Kramersch

UCSB COMPUTER SCIENCE STUDENT · FULL-STACK SOFTWARE DEVELOPER

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Education

University of California, Santa Barbara

Expected Graduation: Jun. 2022

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Sep. 2017 - Jun. 2022

- **Relevant Courses:** Data Structures and Algorithms • Object Oriented Design • Computational Science • Computer Architecture • Computer Organization and Logic Design • Database Systems • Computer Communication Networking • Operating Systems • Machine Learning • Programming Languages • UI/UX Design • Mobile Application Development (Android) • Computer Security
- **GPA:** 3.51 | College of Engineering Dean's Honors List

Work Experience

Front-End Web Developer

Santa Barbara, CA

TUFFHOUSE INC.

Dec. 2021 - Current

Worked as sole front-end developer for start-up company based in Santa Barbara to design and implement a scalable online store website.

- Used React, Next.js, and SASS to build a fully mobile-responsive front-end from scratch, including a dynamic online store and blog
- Used Axios API to connect front-end to a Django and Python back-end for storing user cart data, receiving messages, and email harvesting
- Employed SEO techniques such as server-side rendering with Next.js, dynamic sitemap generation, Google Analytics, and social metadata
- Implemented a secure shopping cart and checkout process using session cookie tracking and Stripe API for payment processing
- Integrated with Google Analytics for tracking website performance, and Google Maps API for displaying location
- Used Figma for iterative design of wireframe for site pages. Built a clean and modern user interface for the website

Projects

IV Housing Search Web Application

Isla Vista, CA

UC SANTA BARBARA

Mar. 2020 - Jun. 2020

Created production-ready web-app to facilitate the housing search process in Isla Vista, allowing users to post and browse housing listings.

- Worked as full-stack web developer, built a scalable front-end in React and Next.js, connected to a Node.js back-end and MongoDB database
- Utilized a MongoDB database to dynamically store housing and user data, hosted site on Heroku using continuous integration practices
- Created a login system to allow users to post, edit, and delete housing listings, using Auth0 API with Google Sign-In for user authentication
- Used Mapbox API to display housing listings on a map of Isla Vista, allowing users to visually compare the location of housing listings
- Developed in a team of three, utilizing Git and GitHub for collaborative programming and version control branching

Portfolio Website

Santa Barbara, CA

PERSONAL PROJECT

Jun. 2021 - Oct. 2021

Created portfolio website to showcase the web development projects I've completed and visually display my resume in a website format

- Built fully mobile-responsive site from scratch using Next.js, React, and SASS, and deployed site on Vercel cloud hosting platform
- Used EmailJS API to automate email delivery from a simple contact form, used Figma to design desktop and mobile wireframes

KOS Operating System

Santa Barbara, CA

UC SANTA BARBARA

Sep. 2021 - Dec. 2021

Designed and implemented a functional light-weight operating system kernel for a simulated DEC MIPS R3000 machine from scratch in C.

- Implemented the baseline Linux system call interface necessary to run a fully-capable command line shell and to implement pipes
- Demonstrated advanced knowledge of memory management, asynchronous systems development, and kernel programming
- Programmed completely in C using a non-preemptive threads library, semaphores, and GDB for debugging

Front-End Web Development Certifications

Santa Barbara, CA

THE ODIN PROJECT, FREECODECAMP

Aug. 2020 - Sep. 2020

Completed two intensive project-focused extracurricular online courses in front-end web development, JavaScript, HTML, and CSS.

- Attained proficiency in front-end web development including JavaScript, HTML, advanced CSS, UI design, SEO, accessibility practices
- Created complex web-pages with an emphasis on mobile-responsiveness, cross-browser compatibility, accessibility, and SEO

Skills

Programming Languages, etc: C • C++ • Java • Python • JavaScript • OCaml • λ^+ • HTML/CSS • LaTeX • SQLite • Datalog

Tools & Technologies: React • Next.js • SASS • Node.js • MongoDB • Figma • Git • Heroku • Vercel • Eigen3 • OpenCV
Jupyter Notebook • numpy • pytorch • GDB • valgrind • Bash

Industry Skills: Object-Oriented Programming • Version Control Branching • Continuous Integration • Database Management
Scientific Computation • Search Engine Optimization • Socket Programming • Kernel Programming • UI/UX Design