

Shivam Parikh

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Education

University of California, Berkeley – Major: Computer Science & Economics, GPA 3.65,

Graduation May 2020

Relevant Coursework

EE 16A - Designing Circuits and Informative Systems	CS 168 - Internet Architecture and Protocols (IP)
CS 70 - Discrete Mathematics and Probability Theory	CS 170 - Efficient Algorithms and Intractable Problems (IP)
CS 61A - Structure of Computer Programs with Python	CS 186 - Introduction to Database Systems
CS 61B - Data Structures with Java	CS 194.26 - Computational Photography (IP)
CS 61C - Computer Architecture with C and Assembly	CS 194.28 - Computational Design and Fabrication

Skills

-Programming: Java (4 years), Python (4), C++ (2), Unix (2), HTML/CSS (2), Git (2), SQL (1), Assembly (1), JavaScript (1), Functional Programming (1), C (1), RISC-V (1)

-Topics: Data Processing (2), Databases (2), Deep Learning (1), Python Web Backend (1), Algorithms (1), APIs (1)

Experience

Business Technology Analyst Intern, Deloitte Consulting

(Jun 2018 - Aug 2018)

- Consulted a state government systems integration project impacting the millions of residents using benefits.
- Built a dynamic process scheduler to organize server and data dependencies in MS Project.
- Introduced automation scripts with 4x speedups over existing manual operations.
- Conducted Disaster Recovery Assessments for client's existing and proposed technology infrastructure.

Software Engineering Intern, PickTrace Inc

(Jun 2017 - Dec 2017)

- Worked with a full stack codebase, internal APIs; Conducted data analysis for large agricultural clients.
- Database Management in Postgres, Web Framework in Python, Data Analytics in Python and SQL.
- Project: Built a React.js status page to communicate with all servers on the PickTrace network. Collected server data to use for load balancing, point of failure recognition, and resource optimization.

Software Engineer, Elenytics [Seed Funded Startup]

(Feb 2016 - Aug 2016)

- Built an indoor positioning system using neural networks trained on RSSI and WiFi fingerprints.
- Neural Networks with Theano/Lasagne, Mapping calculations in Python. Animations and graphics in C++.

CS Research Intern, UCLA Magix Lab, Computer Vision and Graphics

(Jun 2015 - Sep 2015)

- Researched applications of Deep Learning to Computer Graphics models of the human body.
- Conducted neural net architecture testing for graphics application optimization. Attended SIGGRAPH 2015.

Projects (www.sparikh.me/projects)

RISC-V CPU (CS 61C)

- Designed a CPU to interpret and process the core RISC-V instruction set, built in Logisim.
- The CPU included functional registers, multiplexers, memory units, and was pipelined for higher clock speed.

Congressional Partisan Analysis - A Python Data Analysis Project

- Scraped congressional voting data to analyze partisan voting behavior in the U.S. Congress with Matplotlib.

C++ Computer Graphics Animation Renderer

- Built a small graphics library and renderer for 2D/3D geometric shapes and animate the motion.
- Implemented a pixel search optimizations for faster, high resolution renderings.

Generative Hyphae Asymmetric Surface Transformations - A Computational Design Project (CS 194.28)

- Wrote a variety of generative growth algorithms to run in 3D space and grow on mesh objects.
- Developed structural and aesthetic design parameters in the generative algorithm's surface transformation.
- Fabricated the objects to prove functionality in the real world using laser cutters and primarily 3D printers.

The Intersection of Computer Architecture and Environmental Design - A Research Paper

- Researched the interactions between and environmental impacts of hardware and data center design.
- Studied cooling systems of data centers in parallel with specialized processors for low energy consumption.

Awards & Accomplishments

UC Berkeley Dean's List (2018)

Presidential Volunteer Service Award, Gold (2013-2015)

Cal Alumni Assoc. Leadership Scholarship (2016-2017)

Boy Scouts of America, Eagle Scout (2005-2016)