Adhiraj Datar

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Education

University of California, Berkeley **December 2019**

Department: Electrical Engineering & Computer Science and Materials Science & Engineering B.S. Department GPA: 3.95

Minor in Physics (Minor GPA: 4.00)

Relevant Coursework:

Matlab Programming, Data Structures, Properties of Materials, Electrodynamics, Optics, Relativity, Polymeric Materials, Linear Algebra and Differential Equations, Bonding, Crystallography and Defects, Quantum Mechanics, Engineering Thermodynamics

Android Developer, Mobile Developers of Berkeley

Android developer at UC Berkeley's premier mobile app and startup incubator. Designed and developed full stacks mobile and web applications including a social event planning system, weather forecast aggregator and collaborative photo-a-day journal.

Work Experience

Sensor Networking Intern, Berkeley Energy and Climate Institute **February 2017 – Present**

- Designing and prototyping an intelligent wave energy sensor for domestic and small industry demand response (DR) driven energy efficiency
- Leading FlexBox sensor assembly, data collection and analysis, and industrial design of FlexBox console. Saved group more than $1000 in production by implementing a NILM algorithm to disaggregate load data non-intrusively
- Software & Skills used: Raspberry Pi, TensorFlow, Autodesk Fusion 360, Inkscape, C, d3.js

Windows Developer and Systems Admin, UC Berkeley **January 2017 – Present**

- Headed development, testing and production of internal applications used by UC Berkeley faculty and staff
- Discovered and mitigated a potentially disastrous security issue of outdated SSL certs and created an internal monitoring tool with C# and a suite of Powershell scripts to prevent such incidents in the future
- Software & Skills used: Visual Studio, C#, Powershell, PuTTY, Traffic security & encryption, VM management

Android Development Intern, Globant Technologies, Sunnyvale, CA **May 2016 – August 2016**

- Placed in charge of full stack development for contract to build a cross-timezone collaboration app
- Coded threads, fragments and fragment transitions for main activity. Designed aesthetic custom views to use in application. Presented end result to board of executives and senior developers
- Software & Skills used: Sketch, Android Studio, Java

Research, Projects & Development

YearBook App, Project Manager and Architect **March 2017 – Present**

- Led team to create solution to collaboratively document experiences and memories through a mobile, photo-a-day journal
- Developed roadmap for completing App – assigned stories, conducted code reviews, finalized workflow and ensured that team members were contributing their best while accommodating individual needs, strengths and concerns
- Managed business side, monetization, client acquisition and app deployment to google play store

Lazr Lab, Co-founder **January 2016 - Present**

- Joined project to create RC Aviation parts and components. Designed, sketched and modelled 3D RC Quadrotor frames in Autodesk Fusion 360. Developed functional machined by parts by laser cutting frame designs
- Achieved high-quality, low-cost results by laser cutting designs instead of crafting frames traditionally
- Lazr project website: http://lazr.us/

BlueWater, Project Lead & Founder **September 2015 - Present**

- Designed Arduino based water flow sensor to combat drought in California by promoting wastage awareness
- Used IoT concepts to communicate data between BlueWater devices, household wireless printers and nearby BlueWater devices. Monitored and compared water consumption trends among users
- Compiled and analyzed collected data to generate detailed water saving suggestions, tips and plans

Stream, Desktop Physics Engine **December 2015 – May 2016**

- Created desktop simulation to model particle motion in presence of electric and gravitational fields
- Used a dynamic programming algorithm to develop native physics engine and particle system capable of handling emitters, beam acceleration and collisions
- Implemented physics engine and simulation in desktop app to create an interactive, experiential puzzle game designed to teach high school students basic E&M interactions and concepts