PREETAM J. D'SOUZA

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$ `whoami`

I'm a **full-stack product engineer** with a strong technical background in **software** systems--from **embedded** devices and **operating systems**, to **cloud** services, up to **web** and **mobile** app development. I've had broad experience working in small, agile startups while juggling the roles of engineer and product manager, as well as collaborating across engineering and product teams within larger, more established companies like Amazon Web Services. I also have extensive experience as an **open-source software** maintainer and contributor. If there's one thing I enjoy doing, it's **creatively obsessing over engineering an inspiring product experience** — and then making it happen. I look forward to working together to build an amazing experience for your users as well. Thank you for your consideration.

$ `ls ~/experience`

Mirai Labs (January 2018 - Present)
Founder, Director
- Leading Mirai's venture studio and helping our clients build extraordinary software. Services include consulting, idea exploration, market research, design sprints (based on Google Ventures' Design Sprint), and development.
- Leading the design and development of our own ventures, including:
  - Express Saver — An app for tracking dynamic high-occupancy toll (HOT) rates in the Washington metropolitan area with 1000+ downloads and 500 monthly active users. Built for iOS and Android using React Native.
  - COVID-19 Alert — A service for visualizing and exploring coronavirus data. The app is built for iOS and Android using React Native, and a web version is also being built using React.js. The backend API is written with Go and a few scraping services are written with Node.js.
- Led the management and development of client projects, including:
  - An iOS & Android app for a machine learning startup that analyzes athlete training footage (still in stealth mode). Our services included planning a development cycle using a lean form of Agile, coaching the client's engineering team on React Native best practices so they could maintain the app going forward, running due diligence on open-source libraries and working with library maintainers to make improvements that we required, and building the actual MVP.

    "I've worked at quite a few places with strong engineering cultures, including Google and Quora. Preetam was just as good as any of the folks I've worked with there and an absolute pleasure to work with. He took on a hard assignment with our video application and got it done quickly and efficiently. He also endured, with patience and guidance, my bumbling around while trying to learn mobile development from his example. Thanks to his lead, we had our MVP able to put on devices in a month." — Client founder & CTO (contact available upon request)

Maru (February 2015 - Present)
Founder, Lead Engineer
- Led the complete research, design, and development of Maru, an innovative Android / Linux hybrid operating system that brings desktop productivity to mobile devices. Maru turns your phone into a PC--it gives you bloatware-free Android when you're on the go, and complete desktop Linux at your desk. After flashing Maru on your device with a quick installer, you can hook up your device to an external display, pair up a bluetooth keyboard and mouse, and experience a complete Debian-based desktop (multi-window, desktop apps, etc.) while simultaneously interacting with Android on your device screen.

- Led the product launch for Maru, scaling and improving the software from a small beta group to tens of thousands of users over ten releases, and being featured in The Verge, Digital Trends, Gizmodo ("The Best Alternative OSes You Need to Install Already"), Slashdot, Linux Magazine, XDA, Hacker News, and more in the process.
- Led business development and outreach for Maru, including cross-marketing activities with ecosystem partners, pricing and negotiation of licensing deals with device manufacturers, demoing at industry events like CES 2017, etc. that grew the Maru community and brand.
- Currently leading the open-source initiative The Maru OS Project, including open-source licensing, maintaining a wiki with user and developer documentation, managing community forums/mailing lists for users and contributors, and collaborating with contributors to implement and test new features and device ports. The Maru OS Project has a growing presence on GitHub and proudly sports 1.6k stars as of this writing.

Amazon Web Services, Palo Alto, CA (October 2013 - January 2015)
Full-Stack Software Engineer, Lead Android Engineer
- Led the design and development of the Amazon WorkDocs enterprise-grade file sharing and collaboration mobile app for Android. Successfully launched and grew the WorkDocs Android app to over 10,000 installs and an average rating of 4.0 across 168 reviews in three months.
- Led the implementation and operation of a real-time continuous testing and alarming service for WorkDocs endpoints around the globe to mitigate outage impact time and ensure service availability.

Amazon Web Services, Seattle, WA (June - August 2012)
Software Engineer Intern
- Architected and implemented a scalable, event-based distributed system for delivering up-to-date pricing for AWS customers via push notification.
- Integrated and leveraged the AWS cloud platform including EC2, S3, SNS, SWF, and SQS.
- Constructed a machine learning algorithm for judging news article relevance for the Amazon Machine Learning Hackend 2012 which scored ~0.98 on the ROC-AUC metric.

JKL Treasury and Financial Consulting, Sydney, Australia (July - November 2011)
Quantitative Intern
- Provided quantitative financial consulting services for a variety of clients, including the Australian Tax Office.
- Mined and performed analytics on key economic indicators using the Thomas Reuters DealScan and Datastream statistical databases.
- Calculated post-liquidation interest (PLI) due to creditors for overdue loans with hidden interest options worth over $60M AUD in a bankruptcy case.

Eloqua Corp., Vienna, VA (Summer 2010)
Automation Engineer Intern
- Created automated programs for regression testing using Lebowski, an open-source framework leveraging Selenium's browser automation and RSpec test structure.

Arlington County, Arlington, VA (Summer 2007)
Software Engineer Intern
- Developed GASP, a graphics utility program in Python for the OLPC (One Laptop Per Child) project.

`$ ls ~/`projects

I'm an open-source enthusiast. You can find most of my projects on my GitHub.

Chloe (2019): A simple static site generator for Clojure with a tiny core and extensible plugin architecture.
Maru (2016): Software that turns your phone into a PC.

RFIDash (2013): An RFID-based POS platform for real-time inventory management and fast retail checkout.
dampOS (2013): A paravirtualized/userspace Unix-like multitasking OS with a priority scheduler, FAT-based file system, and job control shell.
pmsh (2012): An open-source, lightweight, modern shell supporting I/O redirection, multi-stage pipelines, and job control.
GASP (2007): An open-source Python graphics library for the One Laptop Per Child (OLPC) project.

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$ ls ~/education
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University of Pennsylvania
    The Wharton School, Bachelor of Science in Economics, *Summa Cum Laude* (May 2013)
    The School of Engineering and Applied Science, Bachelor of Applied Science in Computer Science, *Summa Cum Laude* (May 2013)

University of New South Wales (Fall 2011 Study Abroad)
Thomas Jefferson High School for Science and Technology (2005 - 2009)

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$ find ~ -type skill | xargs cat
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Programming Languages

JavaScript	Kotlin
Clojure	C++
C	Python
Java	Ruby
Go	R
Bash	

DevOps

Docker	Kubernetes
Linux Containers (LXC)	Xen
Jenkins	QEMU/KVM
AWS (EC2, S3, SQS, SNS, SES, Route 53, CloudFront)	

Web

React	Vue.js
Redux	Node.js

Mobile

Android kernel / platform customization and porting	React Native
Android app development	

Linux

Kernel customization	X11 / Xlib app development
Distribution customization	