

Nikhil Reddy

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Education

University of California, Berkeley

B.S. Electrical Engineering and Computer Science

- Relevant Coursework: AI, Data Science, Algorithms, Data Structures, Security, UI Design, Probability Theory, Computer Architecture, Natural Language Processing, Machine Learning
- Accel Scholar, selected by the venture capital firm for achievement in technology and entrepreneurship

Professional Experience

Tesla Motors, Software Engineering Intern, May - August 2018

I returned for a third summer at Tesla to work on our proprietary auto-diagnostics machine. My work consisted of performing data analysis on vehicle signals and alerts, developing machine learning solutions to improve our current platforms, and being responsible for back-end feature development and API builds whenever necessary.

Recology, Technical Product Management Intern, August – December 2017

I was hired by Recology to spearhead the development of a new type of waste scanner. My work involved creating a robust storage server, developing an image classifier that could identify metal, plastic, trash, compost, recyclables, paper, and cardboard with incredible accuracy, and prototyping a hardware/IoT camera device that integrated with our classifier to recognize objects as they fall into bins real-time.

Tesla Motors, Software Engineering Intern, May - August 2017

I worked on our auto-diagnostics machine, which would intelligently diagnose a vehicle's issues using machine learning algorithms and node-based networks. I spent 3 months developing software for the platform, which would allow service technicians to input a vehicle VIN and session date, and immediately retrieve a full diagnostics report of the car's issues.

Tesla Motors, Software Engineering Intern, May - August 2016

Optimized and performed build improvements on the Toolbox Desktop app used by all service technicians.

Personal Endeavors

YouTube, [YouTuber](#), January 2014 - Present

I run a popular YouTube channel updated weekly that provides its **26,000** subscribers with educational content about growth, literature, technology, and culture. To date, my videos have 9 million views.

Manning Publications, Author and Instructor, August 2018 - Present

I am a published author and instructor with Manning, where I make video courses about machine learning, and am in the process of writing a book about teaching computer science to a wider audience.

The Huffington Post, [Technical Contributor](#), August 2016 - Present

I write frequent posts about gadgets, innovations, and broader technological philosophies that interest me

Software Skills

Back-end development in Python, Java, and C. Python/SQL Data Analysis & Visualization. Experience with TensorFlow and Keras. Fluent in database & messaging queue technologies (PostgreSQL and RabbitMQ specifically). Extensive experience in building backend APIs for high-usage applications.

Selected Projects

Machine Learning Analysis of Tesla Car Sound Files

Used TensorFlow and WaveNet to process sound files of car vibrations (rattles, clanks, etc.) and automatically predict what issue a particular car suffered from (motor whine, glovebox screw, etc.)

Raspberry Pi Motion Tracking and Image Classification

Used a Raspberry Pi, TensorFlow, and motion tracking libraries to build a portable camera tool that could capture garbage as it falls into a bin and immediately classify it as one of six categories with > 97% accuracy.

Secure File Storage and Sharing System

Used PyCrypto, a fusion of symmetric/asymmetric key cryptography, and university servers to build a E2EE secure file share/storage system to transfer documents.