

Nikhil Punathil

I am an international student from Bangalore, India, at the University of California, Santa Cruz, studying Computer Engineering (Systems Programming). I have been learning about Android and programming since I was 14 and my interest in the field has never dwindled.

EDUCATION AND ACHIEVEMENTS

SEPT 2017 – present

UNIVERSITY OF CALIFORNIA SANTA CRUZ – Bachelor of Science: Computer Engineering

- + Field of focus: Systems Programming; Current standing: Sophomore (2nd year).
- + Current cumulative GPA: 3.4
- + Recipient of Dean's Undergraduate Scholarship Award (\$25,000)
- + Dean's List for Fall 2017

2015 – 2017

NATIONAL PUBLIC SCHOOL, BANGALORE, INDIA – High School (Indian 12th Grade)

- + Coursework: Physics, Chemistry, Mathematics, Computer Science and English.
- + Overall Aggregate of 92.5% with 100% in Computer Science (C++, SQL).
- + Member of Student Council: Technical Head.
- + State finalist in TCS IT Wiz, a national-level interschool tech quiz in India.

Previous High School

CAMBRIDGE PUBLIC SCHOOL, BANGALORE, INDIA – Indian 10th Grade

- + 10th Grade aggregate of 91.5% with 100% in Computer Science (Java) in board exam.
- + Member of Student Council: Captain of Mars House.
- + Awards: Best Outgoing Student, Best Academic Performance.

WORK EXPERIENCE

TUTORING

LAB TUTOR FOR CMPE 12 (ASSEMBLY LANGUAGE): WINTER – SPRING '18, WINTER '19

DUTIES:

- + Assist students in lab with course-related issues and questions
- + Assist TA in Lab sections
- + Work duration: 2-7 hrs./week.

LSS LEARNING ASSISTANT

MSI AND SMALL GROUP TUTOR: SPRING, FALL 2018

DUTIES:

- + Help students understand the core concepts of various classes through interactive learning techniques
- + Handle both large groups (up to 40) and small (up to 6) of students
- + Classes supported: CMPE 12 (Assembly Language), CMPE 13 (Embedded systems and C Lang)
- + Work duration: 4-12hrs./week.

READER

READER (GRADER) FOR CMPS 12B (DATA STRUCTURES): FALL 2018

DUTIES:

- + Grade student's lab assignments by writing scripts and using given rubric.
- + Work duration: 5 hrs./week.

COURSEWORK

MAJOR RELATED

- CMPE 12 – MIPS Assembly Language – 97% (A)
- CMPE 13 – Embedded Systems and C Language – 94.52% (A)
- CMPE 16 – Applied Discrete Math – (A)
- CMPS 12B – Data Structures – 101% (A+)
- CMPE 100 – Logic Design – 86% with 97% in Labs
- CMPS 101 – Abstract Data Types – B+

OTHERS

- MATH:
 - Calculus I, Calculus II, Vector Calculus, Linear Algebra, Differential Equations
 - Probability and Statistics (*In Progress*)
- PHYSICS 5A – Mechanics, CMPE 9 – Statics and Dynamics (*In Progress*)

SCHOOL PROJECTS

12th Grade**AUXILIUM – Android app for safety of motorcycle riders – Hackathon Project**

- + App detects impact using input from a piezoelectric module on an Arduino placed on motorcycle through Bluetooth.
- + Calls emergency services/contacts depending on severity of impact and response of user.

11th Grade**NPSCONNECT – Android study assistant for Indian high school students**

- + App contains concise information from all chapters in course for students of grades 9 to 12, with text to speech abilities for studying on the go.
- + Mobile access to NPSCConnect, a web portal written from scratch, designed to be an interface for teacher-student communication, specific to our high school.

Others

STUDENT COUNCIL VOTING SYSTEM – A web-based voting system (written in PHP, JavaScript, jQuery, CSS and HTML) with support for multiple simultaneous polling stations.

ODYSSEY WEBSITE – A website for a series of interschool competitions organized by our high school. <https://odysseyfest.github.io/>

OTHER PROJECTS

CARBONROM – Open Source Android ROM Project – <https://carbonrom.org/>

- + ROM Developer for CarbonROM, a community based open source custom OS based on Android, with support for over 30 Android devices. Maintainer for OnePlus 3 and Sony Xperia Z1.
- + Worked with the Android fork of the Linux kernel and AOSP source code and build system for various hardware.
- + Booted Android Pie (9.0) on legacy devices including Sony msm8974 platform and a Tegra K1 device weeks after release of source code.
- + Expertise in various tools of large open source projects, including git and Gerrit.

CUSTOM ANDROID ROM DEVELOPMENT – XDA Developers Forum

- + Forum Moderator at XDA Developers and author of many threads involving custom ROM development for various devices, including release builds of popular custom Android distributions like LineageOS/CyanogenMod.

SKILLS

- * HARD WORKING
- * MOTIVATED AND EAGER TO LEARN NEW THINGS
- * TEAM PLAYER
- * ABILITY TO ADAPT TO ANY ENVIRONMENT
- * STRONG LEADERSHIP SKILLS AND ABILITY TO WORK WITHOUT SUPERVISION
- * CAN WORK WELL UNDER STRESS/PRESSURE
- * EXCELLENT ORAL AND WRITTEN COMMUNICATION SKILLS
- * STRONG PROBLEM-SOLVING AND DECISION-MAKING SKILLS


PROGRAMMING LANGUAGES:


JAVA	★ ★ ★ ★ ★ ★ ★ ★ ★ ★	C++/C	★ ★ ★ ★ ★ ★ ★ ★ ★ ★
ANDROID	★ ★ ★ ★ ★ ★ ★ ★ ★ ★	LINUX	★ ★ ★ ★ ★ ★ ★ ★ ★ ★
HTML/CSS	★ ★ ★ ★ ★ ★ ★ ★ ★ ★	ASSEMBLY	★ ★ ★ ★ ★ ★ ★ ★ ★ ★
SQL	★ ★ ★ ★ ★ ★ ★ ★ ★ ★	JAVASCRIPT	★ ★ ★ ★ ★ ★ ★ ★ ★ ★

OTHER TOOLS:

- STRONG WORKING KNOWLEDGE OF GIT AND ITS APPLICATION IN LARGE SCALE OPEN SOURCE PROJECTS - ★ ★ ★ ★ ★ ★ ★ ★ ★ ★
- EXPERIENCE WORKING WITH VARIOUS COMPONENTS OF THE LINUX KERNEL, SPECIFICALLY THE FORK FOR ANDROID DEVICES, AND RELATED BUILD SYSTEMS - ★ ★ ★ ★ ★ ★ ★ ★ ★ ★
- WORKING UNDERSTANDING OF NETWORKING FUNDAMENTALS AND THE USE OF NETWORK MONITORING TOOLS SUCH AS WIRESHARK - ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

CONTACT ME

 npunathi@ucsc.edu
nikhilpe@gmail.com

 +1(213)-298-8094

 www.linkedin.com/in/nikhil-punathil

 <https://github.com/drakonizer>