NASHIR JANMOHAMED

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EDUCATION

Santa Monica College	*September 2017 - Present*
Computer Science and Engineering	GPA: 3.78
University of California, Los Angeles	*July 2013 - June 2017*
Bachelor of Music, Ethnomusicology-Jazz Studies	GPA: 3.47
Alexander Hamilton Senior High School	*September 2009 - September 2013*
Focus in Jazz Studies	GPA: 3.67

STEM

SKILLS AND TECHNOLOGIES

Programming Languages	C/C++, Java, Python, MATLAB, bash
Markup Languages	HTML/CSS, LaTeX
Frameworks	OpenCV, NumPy, AssertJ
Technologies	Git, GitHub, Jenkins, Arduino, Raspberry Pi
Operating Systems	MacOS, Linux (Ubuntu, Red Hat, Raspbian), Windows, ROS

STEM WORK EXPERIENCE

NASA – Robotics Intern   *Summer 2020*

- Upcoming internship.

NASA – Robotics and Computer Vision Intern   *June 2019 - August 2019*

- Developed computer vision system using OpenCV to track simulated agents, predicting their trajectory in real-time. CV system creates a baseline for future work in autonomous GNC for various robotic platforms by creating paths that avoid collisions in dynamic environments

- Presented results of work to branch-level management at NASA KSC

- Wrote grant application to internal NASA KSC funding stream for heterogeneous decentralized multi-robotic system for In-Situ Resource Utilization

- Wrote a paper on Path Prediction for Robot Collision Avoidance

NASA – Control System Software Development Intern   *January 2019 - May 2019*

- Worked on Class A safety-critical ground control software

- Participated in full software development lifecycle using agile processes, used source control and work tracking software on Linux environment, gave regular status to various levels of management (technical and managerial)

- Used Java to change implementation of test framework event processing utility which eliminated over thirty intermittently failing unit tests and decreased time required to compile the codebase and run tests

- Used Python to write a script that parses JSON API data from user-specified streams on a Jenkins automation server and creates a CSV file to provide a convenient way for developers to see the history of failing tests

NASA – National Community College Aerospace Scholar (NCAS) *April 2018 - October 2018*

- Wrote software for an autonomous rover (EV3) that used light and touch sensors to navigate mock Martian terrain

- As one of the top performing students in NCAS, was invited back as one of two students for a subsequent NASA workshop to assist with events, competitions, and other activity coordination

PROJECTS

Camera Locking and Modular Positioning System (CLaMP)

- Designed a camera attachment mechanism as an entry to the NASA – Micro-G NExT Student Design Challenge that could be used during spacewalks aboard the International Space Station

- The design was selected as one of 24 to be tested at Johnson Space Center, where NASA divers, astronauts, and engineers gave feedback

- Taught divers proper operation of tool and guided them through operational procedure as the test conductor to validate functionality of design in the "microgravity" environment of the Neutral Buoyancy Laboratory's pool (where astronauts train for spacewalks)

- Miscellaneous duties aside from working on design included creating project website: (www.nashirj.com/quintessence), writing proposal in LaTex, creating the test plan, and managing finances

Vulcanet

- Developed a long-range, low-powered, wifi-enabled mesh network and risk estimation algorithm to predict the likelihood of wildfires given aggregated sensor data obtained from distributed micro-processors which measure various environmental parameters as an entry to UCSD's 2020 season hackathon (SD Hacks '19).

- Winner of "Best IoT that Incorporates Multiple Nodes" challenge hosted by Northrop Grumman at SD Hacks '19

Built a computer

- Researched computer components to ensure optimal compatibility

- Installed multiple operating systems (triple boot): Windows 10, Ubuntu, Hackintosh

WORKSHOPS/TALKS

Intro to Git/Github — *September 2019*

- presented to Santa Monica Robotics Club

Experience as a NASA intern — *June, July 2019*

- presented to NCAS, NASA Swarmathon participants

VOLUNTEER EXPERIENCE

FIRST Robotics Competition – Mentor (Pink Team #233) — *February 2019 - April 2019*

- Mentored a team of high school students alongside NASA and IBM engineers.

- Wrote robot control programs in Java, assembled hardware subsystems, and troubleshot integration of hardware and software functionality.

- The team I mentored won the Orlando regional competition and competed in the FIRST Robotics Worlds competition in Houston.

MUSIC

MUSIC WORK EXPERIENCE

Thelonious Monk Institute of Jazz: Teaching Artist　　　*August 2017 - January 2018*
Taught jazz combos at Kennedy and Ramon C. Cortines high schools through aural analysis of seminal jazz groups, transcription of solos and compositions, study of jazz theory, and improvisation practice on jazz standards.

Gluck Music Outreach: Performing Artist　　　*September 2015 - June 2017*
Played jazz in retirement homes and elementary schools as part of a jazz septet; played music from the standard repertoire as well as original compositions and arrangements by the group.

Gluck Music Outreach: Teaching Artist　　　*September 2015 - June 2016*
Taught in individual and group settings at Bret Harte Middle School. Taught bass, guitar, and drum fundamentals, as well as jazz theoretical foundations to a few advanced students. Led group concert band rehearsals and coached individual sections to create more cohesive overall sound.

Celebrity Cruises: Orchestra Musician　　　*June 2014 - September 2014*
As the bassist aboard a cruise line, played in production shows to a theater with 1500+ person capacity and in lounges and bars in small group setting for dancing/entertainment. Non-musical duties included assisting passengers with boarding and disembarkation and directing passengers during boat drills.

MUSIC PERFORMANCE EXPERIENCE

As a leader　　　*September 2009 - Present*
Catalina Bar and Grill, various UCLA events (Staff Awards, opening of Renee Luskin Conference Center, fundraisers in Pauley Pavilion, department meetings), weekly performances at Whole Foods, various private events.

As a sideman　　　*September 2009 - Present*
Jazz: LA Jazz Society Awards, LACMA Friday Jazz Series, Central Avenue Jazz Festival, Monterey Next Generation Jazz Festival, Reno Jazz Festival, Simon Rodia Watts Towers Jazz Festival, Vail Jazz Festival, Blue Whale, Café 939, Del Monte Speakeasy, Mayme Clayton Library, Reno Jazz Festival, E-Spot (formerly Upstairs at Vitello's), Colburn's Zipper Hall, David Friend Recital Hall, Western States Jazz Festival, Irvine Jazz Festival, Central Coast Jazz Festival, Schoenberg Hall, LA Auto Show, Roth Hall, Schoenberg Hall
Rock/Pop: The Mint, Echoplex, Key Club, House of Blues, Whisky
Musical Theater (Performances): Into the Woods, Once upon a Mattress, The Last Five Years, 35MM, Cabaret Nights, Grease, Avenue Q

MUSIC AWARDS AND HONORS

Individual Artist Award @ Western States Jazz Festival	*February 2012*
Best Rhythm Section @ Western States Jazz Festival	*February 2013*
Outstanding Musicianship Award @ Reno Jazz Festival	*April 2013*
Chosen as bassist in So-Cal School Band & Orchestra Association Jazz Band	*January 2013*
Chosen as 1 of 2 bassists (worldwide) in Berklee Jazz Workshop	*June-August 2013*
Chosen as 1 of 2 bassists (nationwide) in Vail Jazz Workshop	*August 2013*
Chosen as bassist in the Bill Green Mentorship Program	*September 2014*

Recorded for/broadcast on KKJZ radio station	*September 2014*
Recipient of Dolo Coker Honorable Mention Jazz Scholarship	*March 2015*
Recorded for/broadcast on KXLU radio station	*April 2015*
Winner of Angel City Arts Young Artist Competition	*September 2017*
Recipient of the 3rd Mimi Melnick Double M Award for New Jazz Talent	*November 2017*
Recipient of Dolo Coker Honorable Mention Jazz Scholarship	*March 2018*

COLLABORATIONS

Performed with: Justo Almario, Kenny Burrell, Miguel Atwood-Ferguson, John Clayton and the Big Baaad Bass Monsters, Thelonious Monk Institute (as sub), among others

Current member of: Devin Daniels Trio

Past member of: UCLA Mingus Ensemble, UCLA Jazz Orchestra, UCLA Latin Jazz Orchestra, Afronauts, the Dear Collective, Zulu Ali Quartet, Colburn Thursday Night Small Band, Colburn Tuesday Night Big Band, among others

STUDIED WITH

James Newton, Kenny Burrell, John Clayton, Katie Thiroux, Roberto Miranda, John Belzaguy, Katisse Buckingham, Ronnie Harris, Bruce Gertz, Teri Lynne Carrington, Tiger Okoshi, Robert Hurst, Dave Robaire, Tamir Hendelman, Clayton Cameron

RECORDINGS

Sinkeater, AJ Kluth	*November 2017*
Live in Santa Monica (Seismic Belt), Samantha Boshnack	*March 2019*
Quintessence, Nashir Janmohamed	*TBD*

EXTRACURRICULAR ACTIVITIES

SMC Robotics Club – Operations Manager

- Planned meetings and led hardware and software design and implementation for team participating in the VEX U Tower Takeover competition. Learned ROS by means of group study sessions and projects using Turtlebot3. Built website for promotional purposes (smcrobotics.github.io).

- Wrote a winning grant application from VEX robotics for a set of parts worth over $1,000 to begin robotics development. Applied for and received endorsement from SOLIDWORKS in the form of free student licenses for club members.

Miscellaneous

- Languages: English (fluent), Japanese, (beginner/intermediate), Spanish (beginner/intermediate)

- Sports: basketball, rock climbing

ACADEMIC ACHIEVEMENTS

1550/1600 on SAT	*December 7, 2019*
Dean's List at UCLA	*Numerous*
Dean's List at SMC	*Numerous*
Member of Alpha Lambda Delta / Phi Eta Sigma honor society	*Inducted January 2014*

MISCELLANEOUS WORK EXPERIENCE

Cafe Synapse: Cashier and Barista *September 2016-June 2017*
At Home Tutoring *August 2018 - Present*
Freelance Tutoring *April 2017 - Present*