

Adeel Ahmad

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EDUCATION	<i>Bachelor of Computer Science</i> National University of Computer and Emerging Sciences, Islamabad	August 2014 - Present
WORK EXPERIENCE	<i>Software Developer Intern</i> Google Summer of Code 2018 with Boost C++ Libraries  <ul style="list-style-type: none">• Improved the accuracy of geodesic algorithms for nearly antipodal points• Wrote extensive test cases using the Boost Unit Test Framework• Benchmarked the performance against existing geodesic algorithms	May 2018 - August 2018
	<i>Software Developer Intern</i> Google Summer of Code 2017 with Open Astronomy  <ul style="list-style-type: none">• Designed and developed a Python package for Hierarchical Progressive Surveys• Extended a low and high level API for exploring and creating WCS / HEALPix images• Implemented simple and precise drawing algorithm using projective transformation and nearest-neighbor interpolation techniques• Composed API and user-level documentation using Sphinx• Reported system state to the user using progress bar and CPU-and-memory consumption statistics	May 2017 - August 2017
	<i>Full-Stack Web Developer</i> Upwork  <ul style="list-style-type: none">• Developed large-scale PHP Laravel software systems• Designed numerous databases using entity-relationship diagrams• Created front-end interfaces using Vue.js• Implemented AJAX calls using jQuery and designed an API to query data• Hosted applications on the cloud using Amazon Web Services and Google Cloud	January 2017 - April 2017
	<i>Data Scraper, Web Developer</i> Fiverr  <ul style="list-style-type: none">• Wrote automated scripts for scraping data from websites• Integrated Selenium with PhantomJS web-driver for headless browser automation• Used BeautifulSoup and regular expressions for parsing scraped data and performed data analysis using Pandas• Fixed bugs and diagnosed web hosting issues	June 2016 - December 2016
TECHNICAL SKILLS	<i>Programming Languages:</i> Python, C++, PHP, JavaScript, Assembly, Bash, \LaTeX <i>Web Frameworks / Databases:</i> Laravel, Django, MySQL, SQLite, Apache, Nginx <i>Machine Learning:</i> TensorFlow, Keras, OpenCV, NumPy, Pandas <i>Cloud Technologies:</i> Amazon Web Services, Google Compute Engine, Travis CI <i>Front-End Web Development:</i> Vue.js, jQuery, Moment.js, Bootstrap, Gulp, Bower	

PROJECTS	Reconstruct3D ☞	September 2017 - Present
	<ul style="list-style-type: none"> • Implemented the structure from motion pipeline using monocular images • Applied RANSAC on SIFT keypoint matches for removing outlier points • Visualized the result by providing a point cloud representation for the input scene 	
	GeoLib ☞	March 2018
	<ul style="list-style-type: none"> • Implemented various algorithms for computing distance between two points on the Earth's surface • Used C++ template specialization to allow users define their custom data types • Set up Doxygen for source code documentation and benchmarked the implementation against Boost Geometry algorithms 	
	Python astronomy package for HiPS ☞	May 2017 - August 2017
	<ul style="list-style-type: none"> • Developed a Python package for viewing astronomical figures • Wrote parameterized test cases and used Travis CI for contiguous integration • Applied asynchronous programming techniques for fetching tile data 	
	MCQ Exam Checker ☞	December 2016
	<ul style="list-style-type: none"> • Applied Gaussian blur to remove noise from the input image before applying Canny edge detection • Performed template matching using Generalised Hough transform to find the encircled MCQ's • Used 2D cross-correlation for character identification inside the identified MCQ option 	
EXTRA-CURRICULAR ACTIVITIES	DICE-IET, <i>Participant</i> , COMSATS Lahore	December 2017
	FAST IEEE Week, <i>Head Web & IT</i>	November 2016 - January 2017
	NaSCon '16, <i>Vice Head Web & IT</i>	February 2016 - April 2016
	FAST Computing Society, <i>Joint Secretary</i>	February 2015 - December 2015
RELEVANT COURSEWORK	Deep Learning	Digital Image Processing
	Bioinformatics	Data Mining
	Artificial Intelligence	Computer Networking
	Computer Architecture	Operating Systems
	Data Structures	Concurrent & Distributed Systems
INTERESTS	Running, Cycling, Reading, Movies, Cooking	