

Karan Shah

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OBJECTIVE

Junior Physics/CS double major at Georgia Tech looking for an **internship** in **SUMMER/FALL 2016**.

EDUCATION

Georgia Institute of Technology, Double Major Atlanta, Georgia
Candidate for **Bachelor of Science in Computer Science (AI and Modeling-Simulation)**
Candidate for **Bachelor of Science in Physics** *Expected May 2017*

EXPERIENCE

Student Research Assistant, Otte Lab, School of Physics *January 2016 - Present*

- Worked on performance studies of novel photon detectors for future gamma-ray instruments.
- Running gamma ray/photon detector simulations on GT Inchworm Federation. Simulations written in C++.
- Packages used: CERN ROOT Data Analysis Framework, ROBAST and some optics packages.
- Link: <http://otte.gatech.edu/student-projects/>

Big Data and Learning Analytics Vertically Integrated Program *August 2015 - Present*

- Working with a team of 12 to analyze and improve Georgia Tech's 30 MOOCs.
- Duties include curating and storing big data, setting up data warehouses, and developing software and methods for data analysis that can be used to improve learning in the classroom.
- Currently working in a sub-group analyzing data from Coursera and setting up a data warehouse using SQL while also testing other stacks.

Developer and Analyst, Cryptomen – Startup *July 2014– February 2015*

- Part of a 5 person startup that raised \$47,000 in cryptocurrency investment.
- Duties include contributing to a program for trading cryptocurrencies online and analyzing different cryptocurrencies in Python and Matlab.

GEORGIA TECH PROJECTS

Cellular Automata - Computational Physics Class *January 2015 – May 2015*

- Worked in a team of 3 to create a simulation software and write a paper on cellular automata.
 - Programming in Java. Created a software to model cellular automata.
 - Wrote a short paper to show the capabilities of the software and draw inferences on cellular automata.
- Link: <https://github.com/karanprime/Cellular-Automata-Project>

Android Development – Objects and Design Class *January 2015 – May 2015*

- Worked in a team of 5 to create a socially driven shopping phone application.
- Programming through Android Studio and using Gradle Automation System to build our projects.

Sunset Observation Project – Astronomy Class *August 2013 – December 2013*

- Wrote a paper analyzing the movement of the Sun throughout the semester.
 - Took regular observations of the sunset measuring angles and distance of the sun from defined landmarks. Used tools such as digital protractors and Adobe Photoshop to measure angles.
- Link: <http://www.prism.gatech.edu/~kshah84/SUNSETpdfFinal.pdf>

SKILLS

Software

Java, C, C++, Matlab, Python, Mathematica, SQL, LaTeX, HTML/CSS, Git

Computer Science Concepts

Algorithm design and analysis, Probability and Statistics

Hardware

Raspberry Pi, Arduino

Computer Engineering Concepts

Logic Gates, Karnaugh Maps, Transistors

Spoken Languages

English, Hindi, Gujarati

Instrumentation

General electronics and circuits, Soldering, 3D Printing

LEADERSHIP AND ACTIVITIES

Co-Founder, Bitcoin@GT, Georgia Tech's Official Bitcoin Club

August 2014 - August 2015

- Founded Georgia Tech's Bitcoin Club.
- Conducted presentations on using Bitcoins. Oversaw marketing tactics to generate interest and awareness about Bitcoin.
- Organized events in collaboration with companies such as Bitpay and organizations like Atlanta Bitcoin Meet.

Editor, Cryptomen

July 2014 - February 2015

- Handled team meetings. Each member of the 5 person team had very different skill sets.
- Maintained the company blog. Did research and wrote my own articles on cryptocurrencies. Moderated other articles.
- Handled marketing on social media (Facebook, Twitter, Reddit, Bitcoin forums).

Member, Financial Programming Committee

- Helped in organizing Finance Career Fair 2014.
- Invited employers to the fair, managed logistics, handled students at the fair.

HONORS AND CERTIFICATIONS

- Dean's List: Fall'13, Spring'14, Spring'15, Fall'15
- Responsible Conduct of Research Stage 1 Certificate, CITI, License 15693882
- Top 1 percentile in Indian National Astronomy & Astrophysics Olympiad, 2012

OTHER CAMPUS JOBS

Center for Non Linear Science, School of Physics

January 2015 - August 2015

- Helped in producing a specialized open online course for a graduate course on chaos theory.
- Duties include producing video lectures, making an in-house MOOC system with auto-graders and solving any problems as they show up.

Link: <http://www.chaosbook.org>

E-Text Production Assistant, Alternate Media Access Center

May 2014 - March 2015

- Digitizing books into a machine readable format using software such as ABBYY FineReader and Adobe Acrobat Pro, using MATHML to convert technical literature into an accessible format, converting normal documents into accessible formats.

Student Event Assistant, Georgia Tech Athletic Association

February 2014 - December 2014

- Enforcing policies and procedure during athletic events, handling guest complaints and concerns, deterring disruptive behavior, having knowledge of all credentials and enforcing restricted access areas.