Varun R. Mangalick

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Education

Massachusetts Institute of Technology

Bachelor of Science in Computer Science (GPA: 4.9)

 $Cambridge,\ MA$

Grad. May 2019 (est.)

Relevant Coursework: 6.867 (Graduate Machine Learning) 6.033 (Principles of Computer System Design) 6.046 (Advanced Algorithms), 6.005 (Software Construction with Java), 18.200 (Applied Discrete Mathematics), 6.047 (Computational Biology), 6.006 (Intro Algorithms)

Work Experience

MIT CSAIL Undergraduate Researcher

September 2017 - Present

• Expanding the functionality of a code functionality inference and regeneration tool under the mentorship of Dr. Martin Rinard

${\bf Quant cast}\ Software\ Engineering\ Intern$

June 2017 - August 2017

- Implemented an API in Python/Flask for ID Mapping as part of a 3rd party data ingestion pipeline
- Integrated API into existing modules in data ingestion pipelines

UnifyID Software Engineering Intern

January 2017 - February 2017

- Implemented a Node.js server responsible for credential sharing for accounts across multiple devices and users.
- Started integration of credential sharing server into a chrome extension.

Nutonian Data Science Intern

June 2016 - August 2016

- Built a predictive model for crime frequency dynamics and incorporated the model into an artificial intelligence application
- Work was approved for use by data scientists with the US Air Force

Study of Life Co-founder

August 2014 - Present

• Created, designed and ran a blog, resource center, and tutoring service for students wanting help in biology classes or interested in participating in biology competitions such as the USA Biology Olympiad

Biotechnology Institute, University of Minnesota Research Intern

June 2014 - August 2015

• Completed computational experiments using R, python, and QIIME to analyze the effects of various external influences on the diversity and composition of the human microbiome under the mentorship of Dr. Dan Knights

Skills

Languages: Java, Python, Javascript, R, HTML+CSS

Tools and Frameworks: Node.js, Express, MongoDB, React.js, Pandas + NumPy, Docker + AWS

Activities

Code For Good (MIT): Technical consulting for local nonprofits. Our team created a data visualization tool for Partners for Youth with Disabilities.

Hackathons

- HackMIT 2017: Created Calcium, a chrome extension for keyboard based Google Calendar control
- HackMIT 2016: Created a tool with Python that converted a picture of written equations to LaTeX code
- MakeMIT 2016: Created an automated micropipetting machine; ranked in the top 10 teams

MIT Resonance A cappella vocal performance

MIT Bhangra Traditional Indian Dance

Honors and Awards

USA Department of Education Presidential Scholar of Academics

June 2015

• Honored by the US Secretary of Education and awarded a Presidential Medallion

International Biology Olympiad Gold Medalist

July 2014, July 2015

• Competed against 240 students from 60 countries; placed 7^{th} (2015) and 19^{th} (2014) internationally