

Varun Kulkarni

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Education

GEORGIA INSTITUTE OF TECHNOLOGY, College of Computing

Atlanta, GA

Candidate for Bachelor of Science in Computer Science

Expected May 2022

Threads: Information Internetworks & Intelligence

GPA: 3.11, CS GPA: 3.50

Relevant coursework: **In Progress** - Discrete Mathematics, Computer Organization & Architecture with C, Multivariable Calculus, Introduction to Artificial Intelligence; **Completed** - Data Structures and Algorithms in Java, Object Oriented Programming in Java, Linear Algebra

Skills

Technical: Java, Amazon Web Services (AWS), Elasticsearch, ELK Stack, Grafana, Github, Responsive Web Design (HTML, CSS, Javascript), GulpJS (Front-end workflow streaming), Python, JUnit, iOS, JMeter, Shell Scripting, Linux (RHEL, Ubuntu), Inkscape, Machine Learning, Artificial Intelligence, Realtime Systems

Other: Singing, Urban Dance, Tennis, Ping Pong, Badminton, Weightlifting, Biking, Cardistry

Experience and Projects

EcoCAR Mobility Challenge

Atlanta, GA

CAV Sub-team Member

August 2019 – Present

- US Dept. of Energy competition which challenges university students to apply advanced propulsion systems and automation to a Chevrolet car
- Working with onboard sensors and computers to develop perception and control systems for autonomous driving
- Adding components to the system to work with components of the roadway and provide a safe and robust driving experience

Openet Telecom Inc.,

Reston, VA

Software Developer Intern

May 2019 – August 2019

COMP – Centralized Operations Management Platform (COMP), Openet's premier data analytics & visualization platform

- Successfully completed end-to-end installation, configuration, product customization and testing of COMP
- Created live dashboards to monitor operational statistics, KPIs, alarms, event & call detail records, and logs from Openet Policy & Charging Rules Function (PCRF) and Online Charging System (OCS) to easily ensure up to **5 9s** system availability
- Demonstrated capabilities of COMP and presented future capabilities of the solution to an Openet client. Current features included real-time dashboards and querying, and future capabilities include anomaly detection and subscriber tracing
 - The configured demo will be used in future presentations of COMP with other Openet customers

PCRF – Policy & Charging Rules Function, used in operator's network to enforce policy control & flow-based charging

- Installed PCRF solution on an Openet satellite customer's deployment and conducted multi-day performance testing at up to **2000 TPS** on production cluster by pushing SOAP and Diameter traffic through a JMeter testing suite
- Generated reports including in-memory database performance, solution latency and traffic statistics, and alarm counts that were verified by Openet development team and visualized on COMP deployment

Student Center Programs Council, Georgia Tech

Atlanta, GA

Back-end Developer

March 2019 – May 2019

- Creating and implementing backend APIs for SCPC's website which will be used to display campus events, facilitate sign-in, attract sponsors, and provide information about SCPC
- Utilizing NodeJS with Express and MongoDB servers to host and request data, create routes and protocols to access the data from front-end React-based web app

Twogle: Semantic Search Engine (Project)

Atlanta, GA

Developer

October 2018

- Uses Google Cloud Platform, Microsoft Azure ML APIs and PHP to create a search engine that can keep track of preferred user sites with cookies

- Implemented a responsive web UI with Bootstrap and jQuery
- Successive search queries will allow user-preferred blogs and sites to propagate to the first few search results

FIRST Robotics

Fairfax, VA

Lead Programmer, Member of Design Team

June 2009 – March 2018

- Constructed and programmed robots to complete tasks autonomously and with user input against other robots
- Pioneered transition to new control system using new Android APIs and previous generation Motor Controllers
- Programmed in RobotC, Java, and Python and became familiar with technologies like OpenCV
- Experienced real-time code analysis, debugging, and deployment in sprints of five minutes to half hour between competition rounds on the field

George Mason University, Aspiring Scientists Summer Internship Program

Fairfax, VA

Software Intern

June 2017 – August 2017

- Utilized Javascript libraries in ongoing pastebin editor project called SeeCodeRun, which aims to enhance the development and debugging of JS code
- Lead a team to seamlessly implement a feature into SeeCodeRun which allows developers to see direct relationship between each line of code and its respective object output in live preview window using distinctive colors.
 - Supported jQuery and ReactJS based objects

Notable Accomplishments

- **AWS Certified Solutions Architect – Associate (as of Aug 2019)**
- Won **IEEE Northern Virginia Chapter Award** at Regional Science Fair (2018)
- FIRST Robotics Competition Regional Competition Judges' Award (2018)
- FIRST Tech Challenge Rockwell Collins Innovate Award (2015)
- Technology Student Association Webmaster Chapter State 2nd Place, Qualified for Nationals (2015)
- FIRST Tech Challenge Regional Competition Finalist (2014)
- Technology Student Association Video Game Design Chapter **National Champion (2014)**