

Deepit Sapru

914 Greek Row Drive, Apt 236, Arlington, TX 76013 | 682-553-5840
dsapru@hotmail.com | linkedin.com/in/deepitsapru | github.com/dsapru | dsapru.github.io

EDUCATION

University of Texas at Arlington, TX, GPA: 3.6

Master of Science in Computer Science, 2017 - 2019

Courses: Distributed Systems, Web Data Management, Data Mining, Algorithms, Cloud Computing, Secure Programming, Adv Software Testing, Wireless Networks

Visvesvaraya Technological University, India

Bachelor of Engineering in Computer Science, 2013 - 2017

WORK EXPERIENCE

Software Engineer Intern May 2016 - Jul 2016

Oil & Natural Gas Corporation, Navi Mumbai

- Developed **OpenGL** applications in C/C++ for capturing shallow subsoil structure, reservoir characterization and post plot render of the oil-well.
- Worked with Manager (Programming) in consolidating requirements and later taking it to software development lifecycle. Involved in unit testing and bug fixing.

Product Engineer Dec 2015 - Jun 2016

USHVA Clean Technology, IIT Mumbai

- Developed web services in **Java** and managed Web Applications with **HTML**, **CSS**, **JavaScript** and **PHP MVC**.
- Created mobile apps with cross platform technologies like **jQuery** mobile and **Cordova** for Android. Managed databases monitored server, and deployed applications.

Research Intern Jan 2016 - Mar 2016

TATA Centre for Technology & Design, IIT Mumbai

- Research on **MPTCP**. Witnessed, and validated the possible **Linux-kernel** implementation. Utilized **Wireshark** as a tool to troubleshoot and inspect the network and the protocol at play.

ACADEMIC PROJECTS

Cloud Computing Jan 2018 - May 2018

All the applications were developed in **Python** using **Flask** and several other libraries.

- Amazon Web Services:** **S3**, **RDS**, **Auto-scaling**, Upload-Download and versioning files to-and-fro. Upload **CSV** and performing **CRUD** operations. Used **Memcached**, performed queries along with performance calculation & optimization. Performance test by traffic creation using **Jmeter** with **ELB** and scale up-down **EC2** instances.
- Microsoft Azure:** Instagram-clone application. **User authentication**, Advising/Student platform on **Azure DB**. Data visualization in **R** with **D3js**.
- Google App Engine:** Dropbox- like application. Storage Management, Encryption.
- IBM Cloud:** Encryption utilizing on Object Storage Service, Retrieval on File Storage/Buckets and Version Control System.

CFS Task Scheduler Mar 2018 - Apr 2018

- Implementation of **Completely Fair Scheduler** (CFS) using **Java**. Using **TreeMap** implementing powerful data structure of Red-Black Trees. Primary objective - ensure that each task that is active has access to CPU fairly.

Secure Programming

Feb 2018 - Apr 2018

Applications tested using static analysis tools- **FindBugs**, **PMD** for **C**, **C++** and **Java**. Several blackbox testing tools used for exploring and exploiting input validation, buffer overflow, error handling, web UI application involving **XML**.

- Phonebook:** A phonebook application developed using the methodology of secure software development, to prevent any of the OWASP bugs. Use of RegEx for input sanitization and data protection.

Distributed Systems

Aug 2017 - Dec 2017

All the applications were developed in **Java** and several other libraries.

- Thesaurus-client-server:** Client/Server system in **Swing** for GUI utilizing **JDBC** to operate on the **MySQL** database. Regular **Socket programming** exploited to fetch and operate the thesaurus system.
- University advising portal:** University advising application for enrolling/dropping courses involving use of **AWT** GUI and **RMI** and **MQ** for directed procedure and class invocations and distributed garbage collection.
- XML weather client:** **WSDL** application that connects to the National Weather Service website using **HTTP** and **REST** and/or **SOAP** and display current weather conditions with location detection using latitude and longitude.

Web Data Management

Aug 2017 - Nov 2017

Applications were developed in **CodeIgniter MVC** framework and several other markup languages were used.

- Fishcreek Animal Hospital System:** Full stack website developed for veterinary hospital involving the usage of **HTML**, **CSS**, **JavaScript** & **PHP**. MySQL DB operations and manipulations with the help of PDO. Use of XSS for input sanitization and data protection.

Data Mining

Aug 2017 - Nov 2017

Applications were developed in **Python**.

- AT&T Data Classification:** Reading and scaling dataset and implementing KNN, Centroid, SVM, Regression classifiers and detecting accuracy. Improving accuracy by performing 10-fold stratified cross validation. Made use of **Numpy**, **Pandas**, **Scikit-Learn** and **Tensorflow**.

TECHNICAL SKILLS

PROGRAMMING: C++, Java, Python, JavaScript, Perl, R.

FRAMEWORKS: J2EE, RESTful/SOAP, D3js, jQuery, Flask.

DATABASES: Oracle, MySQL, Redis, MongoDB, SQLite3.

WEB: HTML5 & CSS, AngularJS, NodeJS, PHP, Bootstrap.

CLOUD: AWS, Azure, Google Cloud, IBM Cloud.

TOOLS: Android Studio, Git, IntelliJ, Docker, Wireshark.

MEMBERSHIPS/ACTIVITIES

Google Students' Club: Android Development, Deployment. Facilitator.

IEEE: Coordinator. Organizer & Facilitator for several educational & technical events.