

Dane A. Williamson

CONTACT INFORMATION

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PROFILE SUMMARY

Publications:

- 1 Journal Article, 1 Poster

Selected Awards:

- Best Paper Award for the Human-Computer Interaction Thematic Area, in the context of HCI International 2019, 16-31 July 2019, Orlando, FL, USA
- Highest Ranking Junior in Department of Engineering and Computer Science, VSU
- Highest Ranking Sophomore in Department of Engineering and Computer Science, VSU
- Presidential STEM Scholar, VSU

Grants, Scholarships & Fellowships:

- EST-Univ STEM Scholarship (amount: \$26,160.00).
- CIAA Scholarship (amount: \$5,000).
- TMCf-Apple Scholarship (amount \$25,000).
- UVA Distinguished Engineering Fellowship

Research Interests:

Computer Science Education, Machine learning, Software Engineering, Internet-of-Things (IoT), Human-Computer Interaction (HCI), Cyber-Physical Systems (CPS), Autonomous Vehicles, Explainable AI

Teaching Experience:

- Teaching assistant/Peer tutor for multiple undergraduate Computer Science courses
- Taught multiple workshops on Github and Version Control using Git.

EDUCATION

AUG. 2020 - CURRENT Ph.D. University of Virginia
Major: Computer Science
Advisor: Dr. Matthew Dwyer
GPA: 3.925/4.0

MAY 2020 B.Sc. Virginia State University
Major: Computer Science
Capstone Project: Cross Platform Mobile Application
Advisor: Prof. Ahmed Mohammed
GPA: 4.0/4.0(with Honors)

TEACHING

AUG. 2019 - MAY. 2020	Undergraduate Teaching Assistant, Engineering and Computer Science department CSCI 120: Introduction to Programming, CSCI 150: Programming I, CSCI 151: Programming I Lab, CSCI 250: Programming II, CSCI 251: Programming II Lab, CSCI 287: Data Structures, CSCI 296: Web Programmimg.
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INTERNSHIPS

MAY - AUG. 2019 Software Engineering Intern, Apple - Cupertino, CA

- Developed Python Desktop Application to simulate Host Stack of third party BLE Devices
- Developed Web-Scraper to populate MongoDB database with SIG Bluetooth Specifications.
- Utilized internal Python-based framework to communicate with BLE controller via HCI commands.
- Simulated BLE GATT Server using database containing specifications and HCI Commands.
- Presented to Vice-President of Wireless Organization.

AUG. 2018 - MAY. 2019 Software Engineering Intern, VSU - Petersburg, VA

- Designed and implemented Skype-add ins using ReactJS, TypeScript and NodeJS.
- Exported add-ins from web-application to desktop application using Electron.

MAY - AUG. 2018 Software Engineering Intern, IBM - Raleigh, NC

- Wrote automated end-to-end user-interface tests in Protractor Framework for Watson Content Hub.
- Utilized JavaScript/TypeScript to conduct automated API testing in Staging and Production environments.
- Configured Continuous Integration (CI) testing jobs with Jenkins pipeline builds for Docker and NPM registries.

AUG. 2017 - MAY. 2018 Software Engineering Intern, VSU - Petersburg, VA

- Worked within a team to design and implement chat-bots within the Skype-Bot framework using C#.
- Collaborated and reported regularly with Microsoft/Skype engineers who supervised the project.
- Utilized version control systems to maintain and develop code in a shared repository.

SKILLS

Technical Skills:

- Bluetooth Low Energy (BLE)
- Ubuntu, Kali Linux, Linux Mint

- Technical Writing
- Regression Analysis
- Cloud Services: Microsoft Azure, Heroku, IBM Cloud, Firebase
- C, C++, C#, Java, Swift
- Version Control, Asynchronous Programming
- DevOps: Git, Docker, Jenkins
- User Interface Design, User Experience
- Software Engineering, Software Unit Testing
- JavaScript, TypeScript, Python, MATLAB, R, Shell-Scripting
- Simulink, UPPAAL
- PyTorch, TensorFlow
- HTML, CSS, PHP, SQL, XML, MongoDB, Firebase
- NodeJS, ReactJS, Electron, Flutter, Dart

LEADERSHIP AND MEMBERSHIP

- President of Association of Computing Machinery (ACM) - VSU Chapter 2016-present
- Member of National Society of Black Engineers (NSBE) - VSU Chapter 2016-present

PROJECTS

- [Multimodal-Movie Genre Prediction Model](#) which fuses the output of pretrained BERT text classifiers and Resnet image classifiers. (2020)
- [Coupons](#) is a Skype-Certified add-in written in ReactJS which integrates web-services and API functionality into conversation to help users locate and share the latest deals. (2018)
- [ArdVark](#) is a command-line application written in C++ which uses the packet sniffing capabilities of the winsock library to monitor network activity. (2018)
- [Yemaya Pride API](#) is a RESTful API designed with NodeJS to deliver resources related to pride events. (2017)

LIST OF PUBLICATIONS

- 1 Journal Entry.
1. G. Cowart, D. Williamson, N. Farhat and JS. Lee, 'Do Humans STILL Have a Monopoly on Creativity or Is Creativity Overrated?', Human-Computer Interaction. Perspectives on Design - Thematic Area, HCI 2019, Held as Part of the 21st HCI International Conference, HCII 2019, Orlando, FL, USA, July 26-31, 2019, Proceedings, Part I.

REFERENCES

Ahmed Mohammed

Associate Professor of Computer Science and Director of the Software Engineering and Applied Learning Techniques Laboratory (SEAL-T Lab) at Virginia State University

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