Jerone Dunbar, Ph.D.

Honda | Acura Research and Development Raymond, Ohio

EDUCATION

Ph.D. in Human-Centered Computing

University of Florida, Gainesville, FL Cumulative GPA 3.9 (On a 4.0 scale) August 2018

Research Interests: User Facing Software Applications and Mobile Technologies, In-Vehicle Applications, Vehicle to Vehicle and Infrastructure Communication, Internet of Things, Web Based Technologies, Social Platforms, Wayfinding Technologies, Search Interfaces and Systems, Human Factors, Human-Computer Interaction, Electronic Voting Technologies, Databases and Spoken Language Systems.

Advisor: Dr. Juan E. Gilbert

Master of Science in Computer Science

Clemson University, Clemson, SC Cumulative GPA 3.83 (On a 4.0 scale) Focus: Interactive Computing and HCI Advisor: Dr. Juan E. Gilbert December 2013

Bachelor of Science in Computer Science

St. Thomas Aquinas College, Sparkill, NY Graduated Summa Cum Laude, Cumulative GPA 3.98 / GPA in major 4.0 (Both on a 4.0 scale) Focus: Information Usage and Management, Minor: Business December 2009

RESEARCH, TEACHING & PROFESSIONAL EXPERIENCE

User Experience Research Lead

July 2019-Present

Honda Research and Development, Raymond, Ohio

• Lead, design and conduct evaluative research for production Honda and Acura North American vehicle infotainment systems. Co-lead holistic generative research for in-vehicle experiences and provide direction for a wide variety of infotainment user experience research methods and processes.

Senior User Experience Researcher

Dec 2018-July 2019

Honda Research and Development, Raymond, Ohio

• Lead the planning, design, execution and analysis of future in-car technology user experience research for mainstream and luxury cars. This includes using a broad array of research methods to answer the desired research questions and/or goals. Key methods include mixed methods approaches, interviews, surveys, diary studies, participatory design, usability studies, think-a-loud testing, co-creation activities, prototyping and RITE (Rapid Iterative Testing and Evaluation), among several others.

User Experience Researcher

Winter 2016

Google, Inc. Maps UX, Sydney, Australia

• Experience with Google Maps involved a collaborative research effort for in-home user interviews, analyzing a user needs survey, and conducting a usability study of concept designs. For each effort, data was analyzed using affinity diagramming techniques, charts, and tables; and then turned into reports to highlight insights, wins, and losses.

Dunbar 2 of 9

Google, Inc. Search UX, Mountain View, CA

Google Search experience focused on two user experience projects. First, evaluated the
search experience end to end from initial starting page to query formulation to search
results and finishing with result filtering. Results informed the current mental model of
results for the Content and Ads team. Second project evaluated the production experience
for searches focused on Sports. Results will inform the next generation of the Sports
vertical inside of Search.

User Experience Researcher

Summer 2015

Nielsen, Engineering R & D, Tampa/St. Petersburg, FL

Human Computer Interfaces researcher responsible for owning Nielsen User Experience
effort and redesign the way engineering provides tools and technologies to customers.
Intern liable for problem analysis, interviews, card sorting, personas, scenarios, cognitive
walkthroughs, think-aloud test, wireframes, mockups, prototypes and usability testing.

User Experience Performance Analysis Researcher

Summer 2014

Intel Corporation, Software Services Group, Santa Clara, CA

• Lead the qualitative speech data analysis for the workloads and experience task force. Hosted numerous User Experience and Metrics related workshops for the Platform Analysis Center within the Software Services Group and also for other groups across Intel. Worked on qualitative data analysis for speech applications.

User Experience/Human Factors Interaction Designer

Summer 2013

Intel Corporation, PC Client Group, Hillsboro, OR

• User Experience/Human Factors design researcher within the PC Client Group lead the entire User Experience effort for the Seamless Device Switching project. Techniques used included user interviews, cognitive walkthroughs, user interface design, scenarios, personas, wireframes, prototype development, thinking aloud user testing, usability testing and programming.

Interaction and Experience Research Scientist

Summer 2012

Intel Labs, Silicon Valley, CA

• Interaction and Experience Research Scientist is responsible for collaborative rapid prototyping experience, including landscape research, user interviews, interaction design, visual design, prototype development, live presentation, and user assessment.

Researcher Intern Summer 2011

Data Sciences Summer Institute (Dept. of Homeland Security Project), Urbana Champaign, IL

- Worked on a Department of Homeland Security project at the University of Illinois Urbana-Champaign building an Expert Search system that is used to find experts in a variety of disciplines.
- Techniques used, but not limited to data crawling, data classification, topic modeling, information retrieval and web user interface design.
- Managed overall user experience and interface efforts.

Graduate Research/Teaching Assistant

Fall 2014 - Dec 2018

University of Florida Computer & Information Science & Engineering Department, ${\sf Gainesville}, {\sf FL}$

 Project Co-Lead on Automotive and Distracted Driving research. Tasks including but not limited to experiment design, programming, system design, database design, software architecture design, conducting experiments, UX methodologies, writing papers and presenting research topics. Dunbar 3 of 9

• Project team member of Prime III, electronic voting system, which supports universal design. Worked on continuous system design and implementation improvements.

- National Science Foundation (NSF) grant writing team member.
- Teaching Assistant (Fall 2015) for User Experience Design/Interaction Design course, which included instructing, grading, tutoring and office hours for 77 students.

Graduate Research Assistant

Summer 2010 - Spring 2014

Clemson University Department of Human-Centered Computing, Clemson, SC

- Project Lead on electronic voting and verification system usability studies, and also on in vehicle infotainment systems and applications. Tasks included but not limited to programming, system design, database design, software architecture design, experiment design, conducting experiments, writing papers and presenting research topics.
- Team member of Prime III portal and distracted driving teams where I performed many of the aforementioned tasks.
- Primary Liaison for the National Society of Black Engineers National elections.

Research Student Intern

Summer 2009

Computing Research Association based at Auburn University, Auburn, AL

[Distributed Research Experience for Undergraduates DREU]

- Worked mainly in the Human Centered Computing Lab conducting research activities.
- Research included usability studies with electronic voting systems for the blind, deaf and disabled.

Teaching Assistant

Spring 2010

Clemson University Department of Computing, Clemson, SC

- Lab Instructor for Visual Basic course, which included 25 students.
- Tutored undergraduate and graduate students in a variety of Computer Science course but mainly focused on courses that included html, vxml, xml, php, C and Java.
- Grader for Database Systems 462/662 course.

WORK EXPERIENCE

Database Developer Intern

Spring 2009

Wyeth Pharmaceuticals, Pearl River, NY

• Developed database using MS Access for the Procurement Department to enhance the efficiency and processing of crucial large files.

Hardware Systems Engineer

Summer 2008 & Fall 2008

Spectra Laboratories, Rockleigh, NJ

 Conducted PC imaging, and performed various windows installation and updates, PC Transplant, Network and Systems Administrative task.

Resident Assistant

Summer 2007-Fall 2009

St. Thomas Aquinas College, Sparkill, NY

• Responsibilities included but not limited to the planning of numerous educational and social activities, and overseeing resident students to ensure the safety, health and comfort.

SOFTWARE PROGRAMMING, PROBLEM SOLVING AND USABILITY SKILLS

DBMS and TOOLKITS: Windows Presentation Foundation (WPF), Microsoft Access, MySQL, Web-Accessible Multimodal Applications (WAMI), Osate, Topcased, Open GL, InVision, Balsamiq, Figma and Axure.

Dunbar 4 of 9

Programming and Scripting Languages: Processing, Python, PHP, Lisp, VoiceXML, html, CSS, jQuery, Java, JavaScript, C and Visual Basic.

IDEs: Eclipse, NetBeans and Microsoft Visual Studio.

Statistical Packages: JMP, SAS and R.

Problem Solving: Kepner-Tregoe Problem Solving and Decision Making (PSDM) 3-Day Training.

Usability: Research and Design Methods: Interviews, Focus Groups, Think-A-Loud Testing,
Cognitive Walkthroughs, Diary Studies, Landscape Research, Competitive
Benchmarking, Contextual Inquiry, Accessibility Research, Ethnography Study, Remote
User Testing, Usability Testing, Rapid Iterative and Evaluation, Affinity Diagrams,
Personas, Prototypes, Scenarios, Sketches, Storyboards, User Flows, and Wireframes.

PUBLICATIONS

- 1. **Dunbar, J.**, Alikhademi, K., Laurenceau, I., Lewis, B., & Gilbert, J. E.(2021). Driver Alertness Comparison Using BCI Data between the Voice-Based Arithmetic System and Traditional Audio and Visual Alerts. International Journal of Traffic and Transportation Engineering, 10(1), 1-9.
- 2. **Dunbar, J.**, Gilbert, J. E., & Lewis, B. (2020). Exploring differences between self-report and electrophysiological indices of drowsy driving: A usability examination of a personal brain-computer interface device. *Journal of Safety Research*, 74, 27-34.
- 3. **Dunbar**, J., Prioleau, D., & Gilbert, J.E., (2019), CS Motivation for Black/African American Middle School Student, In Proceedings of the IEEE 2019 Research on Equity and Sustained Participation in Engineering, Computing, and Technology(RESPECT), Minneapolis, MN, pp. 55-59.
- 4. **Dunbar, J.**, & Gilbert, J. E. (2017, July). The Human Element in Autonomous Vehicles. In International Conference on Engineering Psychology and Cognitive Ergonomics (pp. 339-362). Springer, Cham.
- 5. Brinkley, J., **Dunbar, J.**, Smith, D.J., and Gilbert, J.E. (2017). A Usability Evaluation of the BMW Active Cruise Control System With "Stop and Go" Function. In Proceedings of the Human Factors and Ergonomics Society 2017 Annual Meeting. Austin, TX, USA, pp. 1536-1540.
- 6. Alvarez, I., Alnizami, H., **Dunbar, J.**, Jackson, F., & Gilbert, J.E., (2015) Help on the road: Effects of vehicle manual consultation in driving performance across modalities, International Journal of Human-Computer Studies, 73, pp. 19-29.
- 7. **Dunbar, J.,** (2015). Improving the GTAM Standard/GTAM Lite User Experience, Nielsen Engineering Research & Development. Internal Whitepaper. Published September 16, 2015.
- 8. Eugene, W., **Dunbar, J.**, Nolan, A., Gilbert, J.E., & Hendrix, R.L., (2015) Designing the Naturalistic Driving Experience, In Proceedings 4th International Conference, DUXU 2015, HCI International 2015, pp. 439–449, Los Angeles, CA, August 2-7, 2015, A. Marcus (Ed.): DUXU 2015, Part III, Springer LNCS 9188.
- 9. **Dunbar, J.,** Hall, P., Moon, D., & Gilbert, J.E., (2015) Video verification: An alternative form of identity verification, In Proceedings of 6th International Conference on Applied Human Factors and Ergonomics (AHFE 2015) and the Affiliated Conferences, AHFE 2015, pp. 4889-4895, Las Vegas, Nevada, July 26-30, 2015.

Dunbar 5 of 9

10. Gilbert, J.E., Moon, D., **Dunbar, J.**, Solomon, A., & Daily, S.B. (2014) Lab Daze: A Web-Series Aimed at Changing the Student's Perceptions of Scientist, In Proceedings of International Conference of Urban Education, Montego Bay, Jamaica, November 6-8, 2014.

- 11. Gilbert, J.E., **Dunbar, J.**, Ottley, A., & Smotherman, J.M. (2013). Anomaly detection in electronic voting systems. Information Design Journal, 20, 3, pp. 194-206.
- 12. Alvarez, I., Alnizami, H., **Dunbar, J.**, Johnson, A., Jackson, F., & Gilbert, J.E. (2011) Designing Driver-centric Natural Voice User Interfaces. In Adjunct Proceedings of the 3rd International Conference on Automotive User Interfaces and Interactive Vehicular Applications, Salzburg, Austria, pp. 166-169.
- 13. Alvarez, I., Martin, A., **Dunbar, J.**, Taiber, J., Wilson, D., & Gilbert, J.E., (2010), Voice Interfaced Vehicle User Help, In Proceedings of the 2nd International Conference on Automotive User Interfaces and Interactive Vehicular Applications (AutomotiveUI 2010), pages. 42-49, Pittsburgh, PA.

CONFERENCE POSTERS/PRESENTATIONS

- 1. **Dunbar, J.** & Gilbert, J. User Control in Autonomous Vehicles. *Florida Education Fund, Research That Impacts Policy and Practice Conference,* Tampa, FL, February 2016, Presentation.
- 2. **Dunbar, J.** & Gilbert, J. Creating a safer driving environment and enhancing the driving experience for our roads. *National Black Graduate Student Conference*. March 2013. Dearborn, MI.
- 3. **Dunbar, J.** & Gilbert, J. The Effects of Semi-Autonomous Vehicle Malfunctions and Override Features on Drivers. *Tapia Celebration of Diversity in Computing.* February 2013. Washington D.C.
- 4. **Dunbar, J.** & Gilbert, J. Anomaly Detection in Electronic Voting Systems. ADMI A4RC, *The Symposium on Computing at Minority Institutions.* Cloud Computing. April 2011. Clemson University, Clemson, SC.
- 5. **Dunbar, J.** & Gilbert, J. Deep Orange, Next Generation Automobiles. ADMI A4RC, *The Symposium on Computing at Minority Institutions.* Winds of Change in Computing. April 2010. Jackson State University, Jackson, MS.

PATENTS/PATENT PENDING

- Patent: "Automotive Camera Vehicle Integration" with C. Montesinos, V. Fang, P. Clifton, T Nguyen, J. Ekandem and J. Dunbar. Intel Corporation, Docket No. P51117, July 2013.
- 2. Patent Pending: "Exploring Redrawn Experiences from the Search Results Page" with J. Dunbar and T. Hausman. Google, Inc. Docket No. Pending. September 2016.

TALKS/SPEAKING ENGAGEMENTS

St. Thomas Aquinas College, New York

October & November 2010

Presented at the primary open house event aimed to encourage prospective students to pursue their degree in Computer Science.

University of New South Wales, Australia

February 2017

Spoke to indigenous minority students who were not traditionally exposed to engineering and Google employees.

Dunbar 6 of 9

The Ohio State University (OSU), Ohio

October 2020 & March 2021

Participated on a panel of senior minority Honda engineers to a broad array of engineering students interested in an Automotive career at Honda R&D.

University of Florida, Florida

July 2021

This talk focused on "Transitioning from Academia to Technology Research and Development" and was mainly for graduate students and postdocs considering a similar path.

Tennessee Tech University, Tennessee

Ian 2022

This talk focused on "Transitioning from Academia and Tech, to Automotive Research and Development" and was mainly for students, postdocs and faculty interested in the automotive journey of minorities. This aligned with the department's Computer Science Diversity Series.

PAPER REVIEWS

Tapia, Diversity on Computing

September 2014

Spring 2013

GRANT REVIEWS

Professional Enrichment Grant

First Place Poster Awardee at NBGSA conference

2013 – 2014 Academic Year

HONORS & AWARDS

Black UX Summit Scholarship Recipient	Nov 2019	
Honda Passion Award	March 2019	
Edward Alexander Bouchet Graduate Honor Society at Yale University	Spring 2018	
Alpha Epsilon Lambda Lifetime Leadership Award	Fall 2017	
International Conference on Human-Computer Interaction (HCII) best paper finalist	Summer 2017	
Harris Scholarship	Spring 2017	
Google Kudos Award	Summer 2016	
Nielsen Innovate Inspire Excel Whitepaper Author Award	Summer 2015	
University of Florida Doctoral Support Award	May 2015	
Generation Google Scholar	Spring 2015	
Intel Recognizing Everyday Heroes of Tomorrow Award – Disciple	Summer 2014	
Intel Recognizing Everyday Heroes of Tomorrow Award – Risk Taking	Summer 2014	
Intel Recognizing Everyday Heroes of Tomorrow Award – Quality	Summer 2014	
Intel Recognizing Everyday Heroes of Tomorrow Award – Business Imperatives	Summer 2014	
Intel Recognizing Everyday Heroes of Tomorrow Award – Great Place to Work Disciple Summer 2014		

Dunbar 7 of 9

Upsilon Pi Epsilon Honor Society	Honor Society Fall 2012	
Intel Labs Kudos Award Summer 2012		
Alpha Epsilon Lambda Honor Society (Top 1% of the top 35% of graduate students) Fall 2010		
First Place Poster Awardee at ADMI conference Spring 2010		
Gold Service Award	Spring 2010	
NCAA Academic Excellence Award recipient	2008 & 2009	
Spartan Leadership Award	Spring 2009	
Alpha Chi and Chi Alpha Honor Societies	Spring 2008 & Spring 2009	
Scholars/Honors Program Scholar	Summer & Fall 2006	
Emerging Leadership Award	Fall 2005	
African American Researchers in Computing Science (AARCS) Scholarship recipient for Microsoft Research.		
MEMBERSHIPS		
Association for Computing Machinery (ACM)	Spring 2008 - Present	
Human Factors and Ergonomics Society (HFES)	Spring 2011 - Present	
IEEE Computer Society	Fall 2011 - Present	
Alpha Epsilon Lambda Honor Society	Spring 2010- Present	
Upsilon Pi Epsilon Honor Society	Fall 2012 - Present	
SERVICE		
President (Univ. of Florida), Alpha Epsilon Lambda (AEL) Spring 2015 - Summer 2016		
Treasurer (Univ. of Florida), Association of Graduate Students in Computer and Information Science and Engineering, Spring 2015 - Summer 2016		
Member, Graduate Student Advisory Council (GSAC)	Fall 2014 - Present	
Member, Black Graduate Students Organization (BGSO)	Fall 2014 - Present	
Member, Jamaican American Student Association (JAMSA)	Fall 2014 - Present	
Member, National Society of Black Engineers (NSBE)	Fall 2014 - Present	
Interim Vice President, Clemson Human Factors and Ergonomics Soci	iety Spring 2014	
Interdepartmental Liaison , Clemson Human Factors and Ergonomics 2014	Society Fall 2013 – Spring	
Graduate Board Member, Student Affairs Student Advisory Board	Fall 2012 - Spring 2014	
President (Clemson Univ.), Alpha Epsilon Lambda (AEL)	Fall 2012 - Spring 2014	
nber, School of Computing Graduate Student Association, Fall 2012 - Spring 2014		
Webmaster, AEL	Fall 2010 - Spring 2011	

Fall 2010 - Spring 2012

Spring 2010 – Spring 2012

Vice President (Clemson), NSBE

Telecommunications Chair, NSBE

Dunbar 8 of 9

Social Networking Chair, Black Graduate Student Association (BSGA)Spring 2010 - Spring 2012NCAA Div II & Club SoccerFall 2005 - Fall 2008NCAA Div II Men's TennisSpring 2006 - Spring 2009Vice President, Student Government Association (S.G.A)Calendar Year 2008President, Campus Activities BoardCalendar Year 2009President, Culture Shock ClubCalendar Years 2008 & 2009

VOULNTEER WORK

Honda-OSU Mentorship Program – Participated in the Honda-OSU mentorship program throughout the majority of my Honda journey, where I have mentored several students pursuing engineering degrees. This program is affiliated with the Honda intern mentorship program for students interning with Honda, which I appreciate and value the opportunity to help guide students with practical industry engineering insight. I also support Resume Review Workshops for OSU minority organizations (June 2020 – present).

Honda Volunteer Week – Volunteered to help thoroughly clean the grounds of Flying Horse Farms, which is a specialty camp that provides healing, transformative experiences for children with serious illnesses. This included cleaning both indoor and outdoor areas of the facility and occurred during Honda's volunteer week of service (June 2019).

Google Tech Volunteer at Australian University - Volunteered at the University of New South Wales to speak to disadvantaged minority students. Participated in group breakout sessions on Saturday afternoon to speak with numerous students in separate groups of 3 discussing their career interests and highlighting some of the possibilities and opportunities is tech, which many were not aware of (February 2017).

GoogleServe- Every year Google has a month of service where employees can dedicate time to doing good and helping those in need. In my time of service with GoogleServe, I helped packed food for starving families in international countries across the Globe. On my day of service in question, a group of approximately 30-40 Google employees, including myself, helped packed food for 10000 people. Almost 22000 die from starvation or malnutrition daily, and this effort directly reduces the number of deaths (June 2016).

3 Minute Thesis Competition – another flagship event with the Graduate Student Advisory Council, where I lead the fundraising efforts, as well as coordinated the graduate student panel (February 2015).

Startup Seminars – lead the Startup seminar and student panel effort within the Computer Science department at the University of Florida aimed at building relationships between Startups and computer science students (Spring 2015).

Nielsen Global Impact Day- Yearly, the Nielsen Company hosts a day of volunteering for employees across the globe. I assisted with the extensive cleaning of indoor and outdoor living quarters for RCS Grace House (which provides temporary living for low income or homeless) family members (July 2015).

Annual Graduate Student Research Day – member of the Graduate Student Advisory Council's planning committee. My responsibilities included managing the scheduling of

Dunbar 9 of 9

events for the day, attaining a keynote speaker, fundraising to support the event, and coordinating the judges (Fall 2014 and 2015).

<CodeIt> Day- Helped develop curriculum and severed as instructor for 12-15 middle school students, where they were taught how to code and build robots using Scratch, Lego Mindstorms and Auduinos (Spring 2013, 2014, 2018 and Fall 2015).

Annual Graduate Student Research Day – member of the Graduate Student Advisory Council's planning committee. My responsibilities included managing the scheduling of events for the day, attaining a keynote speaker, fundraising to support the event, and coordinating the judges (Fall 2014 and 2015).

Habitat for Humanity- assisted with the physical building of homes for low-income families with my honors society, AEL (Spring 2014, 2018 and Fall 2013).

Intel Involved – Managed the snack time effort for all Santa Clara interns for both Intel internships in California. This included purchasing all the snacks that interns were interested in and also strongly encourage interns to take a few minutes every other Friday to refresh their minds, have some snacks and network with other interns (Biweekly from June 2012 to August 2012 and June 2014 to August 2014).

Design Code Build – as a part of an Intel and Broadcom group specific volunteering effort, I taught basic data structures to minority students and facilitated their group efforts to build miniature robots (July 2014).

Intel Involved- I assisted making food baskets for the poor (July 2012).

Litter Pick-up- I was responsible for organizing our biannual service event where we removed the trash and debris within our designated street on campus, which included coordinating between 10 and 30 volunteers. (Fall 2012 to August 2018).