

STUART URBAN

2703 Cheverly Ave, Cheverly, MD 20785 | 443-956-6067 (mobile) | stuart.urban@jhu.edu

EDUCATION

Virginia Tech – Pamplin College of Business, Falls Church, VA PhD in Business (Concentration: Executive Business Research)	2022 (Anticipated)
The Johns Hopkins University – Zanvyl Krieger School of Arts & Sciences, Washington, DC M.A. in Applied Economics	2013
The Johns Hopkins University – Carey Business School, Baltimore, MD M.B.A. (Concentration: Finance)	2009
The Johns Hopkins University – Whiting School of Engineering, Baltimore, MD M.S. in Computer Science (Concentration: Information and Knowledge Management)	2005
The University of Iowa, Iowa City, IA B.S. in Computer Science	2001
B.S. in Mathematics	2001
B.A. in Philosophy	2000

TEACHING EXPERIENCE

The Johns Hopkins University – Carey Business School, Baltimore, MD Full-Time Lecturer – Quantitative Financial Analysis; Statistical Analysis; Innovation for Humanity Developed and teach online version of Quantitative Financial Analysis. Teach onsite version of Quantitative Financial Analysis (up to seven sections and 300+ students) and Statistical Analysis. Serve as Faculty Site Director for Innovation for Humanity experiential learning course for Global MBA students, including guiding students through live consulting projects with Native American pueblos in New Mexico.	2017-Present
The Johns Hopkins University – Carey Business School, Baltimore, MD Senior Professional Instructor – Quantitative Financial Analysis Professional Instructor – Quantitative Financial Analysis Developed lecture materials and exams and administered all grades. Taught up to eight sections (300+ students) simultaneously.	2016-2017 2012-2016
Teaching Assistant – to Professor Yuefeng Han in “Quantitative Financial Analysis” Collaborated on exam preparation, graded all homework, answered student questions, hosted office hours.	2011-2012

RESEARCH INTERESTS

Applying machine learning and advanced analytics to economics and finance.
Financial risk analysis, including Monte Carlo and advanced simulation techniques.
Health economics and analytics.

AWARDS

Lockheed Martin Special Recognition Award, US Mint Data Governance Initiative	2016
Lockheed Martin Special Recognition Award, Centers for Disease Control Pilot Program	2015
Lockheed Martin Special Recognition Award, United Kingdom Census Program	2011
Lockheed Martin Special Recognition Award, Silent Sentry Programs	2007
Lockheed Martin Spot Award, Silent Sentry Programs	2004
Lockheed Martin Spot Award, Silent Sentry National Aeronautics & Space Administration (NASA) Contract	2002
Lockheed Martin Spot Award, U.S. Decennial Census (DCS2000), Archive Preparation	2001

RELEVANT EXPERIENCE

The Board of Governors of the Federal Reserve, Washington, DC

Technology Analyst**2016 – 2017**

- Furthered Board expertise and capabilities in natural language processing (NLP).
- Developed solutions for economic analysis projects using a wide variety of technologies and languages, including Matlab, R, Python, Spark, graphics processing units (GPUs), et al.
- Interviewed economists, officers and Board staff to determine strategic needs for the high-performance computing environment in the Board's research sections.

Lockheed Martin, Rockville, MD

Data Scientist and Project Lead**2010 – 2016**

- Led/performed technical analytics tasks and managed budget, schedule and personnel for US Mint, Lockheed Martin Aeronautics, fraud analytics R&D, healthcare customers, CDC, FTC and others.
- Designed and wrote efficient algorithms on open-source and custom platforms for machine learning and predictive Big Data analytics. Developed presentations including analytics outputs for customers and senior management.

Major accomplishments included:

- Developed machine learning techniques to help the CDC characterize and identify high-risk transmission populations in an active outbreak, allowing state and CDC personnel to focus scarce resources.
- Developed a custom, ensemble-method predictive model to allow a health insurer to identify populations of persuadable individuals for targeted, cost-effective marketing of incentive programs.

Lockheed Martin, Gaithersburg, MD

Principal Investigator, Software Engineer**2007 – 2010**

- Researched, designed, developed, manufactured, integrated and maintained advanced technology systems, products and services on Silent Sentry® Programs.
- Developed complex Matlab and C++ tools for efficient data analysis and presentation, including tools for analyzing large data sets.
- Generated, analyzed and managed Independent Research & Development (IR&D) technical tasks and multi-million-dollar budget, including \$1M+ in vendor and supplier expenditures.
- Directed and consulted for test, algorithm, software, systems, hardware, field operations and analysis teams of up to 16 people in the development of cutting-edge technologies.
- Acted as a voice of compromise between management and engineering teams.
- Wrote annual proposals to successfully secure funding for Silent Sentry research and development, and presented quarterly reports on progress to senior management.

Major accomplishments included:

- Cut proposed software development non-recurring engineering (NRE) costs by 75% through software reuse and an agile development process.
- Successfully secured and managed funding for research and development of Silent Sentry Programs, with our team consistently completing tasks on time and under budget

Lockheed Martin, Gaithersburg, MD

Software Engineer**2001-2007**

- Developed complex Matlab and C++ tools for efficient data analysis and presentation, including tools for analyzing large data sets.
- Developed Passive Coherent Location (PCL) tracker and digital signal processing code for Silent Sentry® 3 passive radar system.
- Developed C# code for the U.S. Decennial Census 2000 Archive Preparation program, including code for database access, management of workflow task failures and TIFF image verification.
- Wrote unit and integration test scripts and software to assist the test teams.

Major accomplishments included:

- Graduated from the Lockheed Martin Engineering Leadership Development Program for high-potential future leaders.

- Cut execution time of previously-existing Matlab tools from multiple days to merely minutes (up to 99% efficiency increase) through vectorization and re-factoring.
- Cut tool preparation and configuration time by up to 80% by developing re-usable, modular and configurable Matlab tools.
- Wrote C++ tracker code for passive coherent location (PCL) system resulting in the first-ever PCL tracking of space launch vehicles (the space shuttle and several rocket types).
- Repurposed workflow failure code to assist the United Kingdom (UK) Census program, fixing six months of UK Census failed workflow tasks in one day.